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AMERICAN SOCIETY

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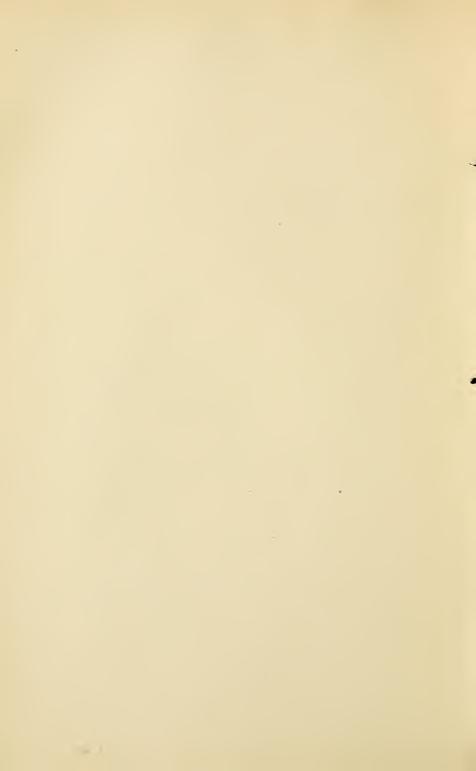
CIVIL ENGINEERS.

INSTITUTED NOVEMBER 5, 1852.

CONSTITUTION, BY-LAWS AND
- LIST OF MEMBERS.

MAY. 1889.

House of the Society, 127 East Twenty-third Street, NEW YORK.



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American Society of Civil Engineers.

CONSTITUTION.

MAY, 1889.

Article I. This Association shall be called the American Society of Civil Engineers.

ARTICLE II.—Its objects shall be: The professional improvement of its members, the encouragement of social intercourse among men of practical science, the advancement of engineering in its several branches, and the establishment of a central point of reference and union for its members.

ARTICLE III.—Among the means to be employed for attaining these ends shall be periodical meetings for the reading of professional papers and the discussion of scientific subjects; the foundation of a library; the collection of maps, drawings and models; and the publication of such parts of the proceedings as may be deemed expedient.

ARTICLE IV.—Civil, Military, Geological, Mining and Mechanical Engineers, Architects, and other persons who by profession are interested in the advancement of science, shall be eligible for admission in their appropriate class.

ARTICLE V.—The officers of the Society shall consist of a President, two Vice-Presidents, a Secretary, Treasurer, Librarian, and five Directors, who shall be elected by written ballot, by a majority of votes, at the Annual Meeting of the Society. The term of office shall begin at the close of the Annual Meeting, and continue for one year, or until other officers are elected. Any vacancy occasioned by resignation or otherwise, may be filled at the next monthly meeting after notice of said vacancy.

ARTICLE VI.—The President, Vice-Presidents, Secretary, Treasurer and Directors shall constitute a Board of Direction, and shall be the Trustees of this Society, under the Act of Legislature of April 12th, 1848, Chapter 319, Laws of the State of New York.

ARTICLE VII.—The Board of Direction shall meet within one week after their election, and the first business in order shall be the appointment of a Standing Committee of three on Finance, and of a Standing Committee of three on Library.

ARTICLE VIII.—The President, and in his absence, the Vice-Presidents in rotation, shall preside at all the meetings of the Society; and in case of their absence, a President protempore shall be appointed.

ARTICLE IX.—The Secretary shall keep an accurate record of all the transactions of the Society and the Board of Direction, and shall issue all notices.

ARTICLE X.—The Treasurer shall have charge of the funds of the Society, receive all assessments, and pay all bills and orders approved by the President, or the Chairman of the Finance or Library Committees. The duties of the Secretary and Treasurer may be united in the same person, if the Society think proper. Moneys belonging to the Society, paid to any of its officers, shall, with a statement showing for what the payment was made, be promptly transmitted to the Treasurer, who shall receipt therefor.

The Treasurer shall deposit the moneys and invest the funds of the Society, in its name, by and with the advice of the Board of Direction; he shall sign all checks.

No indebtedness shall be incurred for the Society, except under such rules as prescribed by the Board of Direction.

No bill shall be paid for the Society until it has been certified by the person authorized to contract it, and audited by the Committee on Finance.

ARTICLE XI.—It shall be the duty of the Librarian to take charge of the library of the Society, and to see that all books are marked with the name of the Society numbered and recorded in a catalogue. In respect to the management of the library, he shall conform to such regulations as may be prescribed by the Society, or by the Board of Direction.

ARTICLE XII.—The duties of the Board of Direction shall be: To have a general care of the affairs of the Society; to apply the funds in the Treasury; to recommend the amount of assessments and appropriations for specific purposes, and to make a report on the affairs of the Society, embracing the report of the Treasurer, at the Annual Meeting.

ARTICLE XIII.—The Finance Committee shall have supervision of the accounts of the Society, shall examine all bills and demands, audit the accounts of the Treasurer, and certify to his annual report.

ARTICLE XIV.—The Library Committee shall have supervision of the rooms, printing and library of the Society, and shall apply to the purchase of books, or other articles of permanent value to the Society, such sums as may be appropriated.

ARTICLE XV.—At any regular meeting of the Society, seven Members shall constitute a quorum for the transaction of business. But the action of a less number at any monthly meeting, at which a quorum is not present, may be entered on the journal, provided such action does not affect the rights of the association, or any member thereof.

ARTICLE XVI.—The active members of the Society shall be divided into three classes, to be styled, respectively, Members, Associates, and Juniors; and each person, when duly elected and qualified, shall receive a certificate of membership, indicative of the peculiar class which he represents. Associates and Juniors shall possess all the rights and privileges of Members, excepting the right of voting.

ARTICLE XVII.—A member shall be a Civil, Military, Mining or Mechanical Engineer who has been in active practice as such for seven years, or has graduated as Civil Engineer and been in practice for five years, and has had responsible charge of work as Chief Resident, or Superintending Engineer, for at least one year; not as a skillful workman merely, but as one qualified to design as well as to direct public work.

An Associate shall be a manager of a railroad, canal or other public work; a geologist, chemist or mathematician; a proprietor or manager of a mine or metallurgical works; an architect or a manufacturer; or one who, from his scientific acquirements or practical experience, has attained eminence in his special pursuit, qualifying him to co-operate with Engineers in the advancement of professional knowledge; but shall not himself be practicing as an engineer.

A Junior shall be one who has had actual practice in some of the branches of civil, military, mining or mechanical engineering, for not less than two years; or, if a graduate of a scientific or collegiate institution, for not less than one year.

A person to be eligible to any class of membership must not be less than twenty-one years of age.

ARTICLE XVIII.— Nominations and proposals for admission to the Society shall be endorsed by at least five Members, who certify that they personally know the nominee or candidate, and that he is worthy of acceptance. Proposals for admission to the Society, of Engineers not resident in North America, and who may be so situated as not to be personally known to five Members of the Society, may be endorsed for ballot by five members of the Board of Direction, who shall, for such purpose, secure evidence sufficient in their opinion to show that the candidate is worthy of acceptance. The proposal for Member, Associate or Junior shall contain a statement, over the candidate's signature, of his age, residence, the nature and term of his professional service, and that he will conform to the requirements of membership, if elected. Fellows shall not be required to present themselves as candidates; those making the nomination shall state the ground therefor, and certify that the nominee will accept, if elected.

A proposal for transfer from one class to a higher shall be made by at least five Members, and shall state the age of the candidate, and the nature and term of his professional service since his admission to the Society. Such statement shall show a degree of qualification sufficient to render the proposed eligible to election in the class to which transfer is asked. Upon the approval of the Board of Direction, the candidate shall be balloted for, as provided in the election of Members; and when the transfer is made, he shall be required to pay as an additional entrance fee the amount of the difference between the entrance fees of the two classes.

ARTICLE XIX.—In elections for membership of either class, Members shall vote by letter, or by ballot in the usual way, and the result shall be announced at the next regular meeting held after twenty-five days have elapsed from the time of mailing the notification. Five or more ballots cast in the negative shall exclude. Members notified but not responding shall be classed as having

voted in the affirmative. In case of the non-election of any person balloted for, no notice shall be taken thereof in the minutes.

The Board of Direction, upon receipt of letters from not less than eight Members in good standing, requesting a reconsideration of the proposal of any rejected candidate, and stating the reasons for the request, may, if it considers the reasons to be sufficient, order another ballot to be taken; whereupon the Secretary shall mail to each member whose address is known, a notice of the same, with a letter-ballot in such form as shall be prescribed by the Board of Direction, requesting the recipient to vote thereby, or in person, on the day appointed by the Board to canvass the ballot. The ballot shall be an open one, and five or more negative votes shall exclude. The Board shall designate a regular meeting at which the ballot shall be canvassed, which meeting shall be not less than twenty-five days after the Secretary has issued the notice above mentioned.

ARTICLE XX.—On being thus elected, the candidate must subscribe to the Constitution and By-Laws (in the terms set forth in Form A in the Appendix), and pay to the Treasurer of the Society such sum as may be determined upon, under the authority of Article XXII of the Constitution, as the regular entrance fee and yearly assessment, before he can be entitled to receive a certificate of membership. If this be not done within six months from the notification of the election, said election shall be considered void.

ARTICLE XXI.—Persons thus elected and duly qualified, who reside within fifty miles of the Post-office in the City of New York, shall be deemed Resident; and those who reside beyond this limit shall be deemed Non-Resident. The membership of any person shall begin on the day of his election.

ARTICLE XXII.—The amount of entrance fee to be paid, as well as the annual dues or assessments for the support of the Society, shall be determined from time to time at some regular meeting of the Society, provided that notice of intended action thereon shall have been given at a previous regular meeting. No alteration in the amount of said fees or assessments shall apply to the fiscal year during which it is made, but shall take effect on and after the first day in January next succeeding the day of the date of said alteration. Members who become Residents or Non-Residents by removal into or beyond the limits prescribed in Article XXI, shall be subject to assessment in the class in which they were on the day of the Annual Meeting, as may appear upon the records of the Society or by written notice to the Secretary.

Any member of the Society, not in arrears for dues, may compound for the payment of all future annual dues, except as hereinafter provided, by the payment of Two Hundred and Fifty Dollars.

Provided, That all Resident Members, or those who may hereafter become such, shall be and remain liable to the annual payment of the difference between the annual dues of Resident and Non-Resident Members, as the same now is, or may be established from time to time; but any Member may at any time compound for the future payment of all annual dues of every nature and kind, by the payment of Seventy-five Dollars in addition to the Two Hundred and Fifty Dollars hereinbefore provided for.

Provided, however, that each person duly elected a Member shall pay the entrance fee and also the annual dues for the current year of his election.

Provided, also, that any Member desiring to compound for future annual dues shall have paid the annual dues for the current year before the compounding sum may be available.

Members compounding shall sign an agreement that they will be governed by the Constitution and By-Laws of the Society as they are now formed, or as they may be hereafter altered, amended or enlarged; and that in case of their ceasing to be Members from any cause whatever, the amount theretofore paid by them for compounding, and for entrance fees and annual dues, shall be the property of the Society.

All moneys thus paid in commutation of annual dues, shall be invested as a permanent fund, the interest thereof only being subject to appropriation for current expenses.

ARTICLE XXIII.—Honorary Members, not exceeding twenty in number in all, may be appointed by a unanimous vote of the Board of Direction and such Past-Presidents of the Society as shall be at the time Members of the Society and resident in the United States. A person to be eligible as an Honorary Member shall be a gentleman of acknowledged eminence in some branch of engineering. Honorary Members shall be subject to no fees or assessments, and shall not be entitled to vote.

ARTICLE XXIV.—There shall be a fund called the Fellowship Fund, ten thousand dollars of which shall be devoted exclusively to the publication of the papers read before the Society. Any person, whether Members or otherwise, if acceptable to the Society, may subscribe thereto. The subscribers to this fund shall be called "Fellows of the Society." A Fellow shall be an acceptable subscriber, who has signified to his proposers a desire to be nominated, and an intention, if elected, to become a member of this class.

Persons who are not Members, and who become Fellows, shall be entitled to all the privileges of the Society, except the right to vote. Members who become Fellows shall, in addition to all the rights they possess as Members, be entitled to receive duplicate copies of all the publications of the Society. Fellows shall be elected in the same manner as Honorary Members.

ARTICLE XXV.—Whenever any person is elected, the Secretary shall immediately inform him of the same by letter (Form B in the Appendix), and the election of Honorary Members shall be likewise communicated to them by a letter suited to each particular case; but no person shall be considered an Honorary Member unless he signify within six months his acceptance of membership.

ARTICLE XXVI.—Every person admitted to the Society shall be considered as belonging thereto and liable to the payment of all assessments, until he shall have signified to the Secretary his desire to withdraw; when, if his dues have been fully paid up, his name shall be erased from the list of Members.

Members in arrears for more than one year's annual dues shall not be allowed to vote until such dues are paid. ARTICLE XXVII.—Any person admitted to the Society who shall refuse to pay any assessment or other dues to the Society, or who shall neglect the same for the term of six months after due notice is issued (in the Form C in the Appendix), shall cease to be a Member.

ARTICLE XXVIII.—Upon the written request of ten or more Members, that for cause therein set forth, a person belonging to the Society be expelled, the Board of Direction shall consider the matter, and if there is sufficient reason, shall advise the accused that his resignation will be accepted. He may, upon demand, receive a copy of the charges against him, and present a written defense. Two months after such advice was given, the Board of Direction shall finally consider the case, and if resignation has not been tendered, or a satisfactory defense made, will then notify the Member that he will be expelled in one month, unless he elects to appeal from this decision. Appeals will be submitted to the Society by letter-ballot. In case no appeal be made, the Board of Direction will expel the Member and notify him and the Society of the same, or of the action of the Society on appeal, and the above shall in any event be the only public announcement of the matter.

ARTICLE XXIX.—The permanent place for the transaction of the business of this Society shall be in the City of New York.

ARTICLE XXX.—The Annual Meeting for the election of officers and hearing the Annual Reports, shall be held on the third Wednesday in January. The Board of Direction shall lay before the meeting a report of the state of the Society, together with a statement by the Treasurer, verified by the Committee on Finance, of the funds of the Society, and the receipts and payments during the year ending on the 31st December preceding.

ARTICLE XXXI.—The annual contributions shall become due for the ensuing year on the first day of January, and shall be payable in advance. It shall be the duty of the Secretary to notify each Member of the amount due for the ensuing year at the time of giving notice of the Annual Meeting.

ARTICLE XXXII.—The Board of Direction may, for sufficient cause, excuse from payment of annual dues any Member distinguished in his professional career, and who, from ill-health, advanced age, or other good reason assigned, is unable to pay such dues; and the Board may remit the whole or part of assessments in arrears, or accept, in lieu thereof, desirable additions to the Library and Museum.

ARTICLE XXXIII.—Proposed amendments to this constitution must be submitted in writing, signed by not less than five Members, on or before the first Wednesday in November, and then sent by letter to the several Members of the Society, at least twenty-five days previous to the Annual Meeting. Such amendments shall be in order for discussion at such Annual Meeting, and may be amended in any manner pertinent to the original amendments by a majority vote of the Annual Meeting, and if so amended, shall be voted upon by letter-ballot in form as amended by the Annual Meeting; if not so amended, they shall be voted upon by letter-ballot as submitted; the vote to be counted at the first regular meeting in March.

An affirmative vote of two-thirds of all ballots cast shall be necessary to the adoption of any amendment.

BY-LAWS.

Section 1.—The regular meetings of the Society shall be held on the first Wednesday in each month. There shall be meetings of the Society held on the third Wednesday in each month, for professional improvement and the encouragement of social intercourse among men of practical science, at which papers shall be read and subjects discussed relating to the theory and practice of engineering, and no other business transacted. The Board of Direction may suspend meetings of the Society in the months of July and August.

A Convention of the Society for professional discussion and social intercourse shall be held annually at such place as the Society may determine, and be presided over by a Chairman selected from among Members not officers of the Society. During the Convention, a regular meeting of the Society, to be presided over by the officers of the Society, may be held for the transaction of business.

On the evening of the first day of the Convention, there shall be held a meeting to which the public may be invited, and at which the President of the Society shall deliver an address giving a summary of engineering progress during the preceding year.

Section 2.—At the regular meetings of the Society, the following order shall be observed in the transaction of business, unless set aside for the time being, by a vote of the Members present:

- 1st. The record of last meeting to be read, approved and signed by the Chairman and Secretary.
 - 2d. Candidates for membership to be balloted for.
- 3d. Communications received since the last regular meeting to be announced, and read if required.
 - 4th. Communications from Members present to be read.
 - 5th. Communications from the Board of Direction to be brought forward.
 - 6th. Reports of Committees to be called for.
 - 7th. Unfinished business to be taken up.
 - 8th. New business to be proposed.
 - 9th. Questions for debate to be discussed.

The same order shall be observed, as far as practicable, at the meetings of the Board of Direction.

Section 3.—All decisions of the Chair, on points of order, shall be conclusive, unless reversed on appeal to the meeting.

Section 4.—Every motion shall be first stated by the President, before debate or taking the question, and every motion shall be reduced to writing, if the President or any Member desires it.

- Section 5.—When a question is under debate, no motion shall be in order, unless for the previous question; to postpone indefinitely; to postpone to a day certain; to lay on the table; to commit; to amend; or to adopt.
- Section 6.—A motion to adjourn shall always be in order, and shall be decided without debate,
- Section 7.—If required by one-fifth of the whole number of Members present, the ayes and nays upon any question shall be called, and entered upon the journal.
- Section 8.—No motion for reconsideration shall be in order, unless one of the majority shall move such reconsideration. A motion for reconsideration being put and lost, shall not be renewed, nor shall any subject or vote be a second time reconsidered without unanimous consent.
- Section 9.—The Board of Direction may call meetings of the Society when they deem it expedient, and shall be bound to do so at the written request of seven Members, stating the purpose of such meeting. Ten days' notice shall be given to Members of any special meeting; the purpose thereof shall be stated in the notice, and no other business shall be taken up at that meeting.
- Section 10.—The rooms of the Society shall be open from 9 a.m. to 4 p.m., every business day, unless otherwise determined by the Board of Direction.
- Section 11.—Every Member shall have the privilege of introducing visitors to the rooms while the Society is not in session, by writing their names and his own in a book provided for that purpose.
- Section 12.—A record of all donations to the Society, whether in money, books, maps, models or other articles of value, with the names of the donors, shall be entered by the Secretary in a book provided for that purpose, to be kept at the rooms of the Society.
- Section 13.—The books, maps and other property of the Society shall only be removed from the rooms under such rules and regulations as shall be prescribed by the Committee on Library, and approved by the Board of Direction.
- Section 14.—A book shall be kept by the Librarian, in which Members may enter the title of any book, map or plan which they may wish to have added to the Library.
- Section 15.—The records of the Society shall at all times be open to Members, and such books of accounts shall be kept in its rooms as the Board of Direction may designate.
- Section 16.—When a paper is presented to the Society, the Secretary shall at once examine it, and report thereon to the Committee on Library, with reference to this standard: Papers containing old matter, readily found elsewhere, those specially meant to advocate personal interests, those carelessly prepared or controverting established facts, and those purely speculative or foreign to the purposes of

the Society, should be rejected. The Committee shall then determine whether such paper may go before the Society. They can return it to the writer for correction and emendation, and call to their aid one or more Members of special experience relating to the subject treated, either to advise on the paper or to discuss it. Such papers as in the judgment of the Committee should go before the Society shall promptly, upon their acceptance, be printed; others shall be recorded in books provided for the purpose. When, however, the Library Committee does not feel authorized to publish a paper, they may provide an abstract thereof, which, when approved by the author, may be published instead of the original paper.

Section 17.—The annual report of the Treasurer shall be certified to by at least two members of the Committee on Finance.

Section 18.—The Board of Direction shall determine the order of its stated and special meetings; provide for an Executive Committee to act in the absence of a quorum, or during the intervals between the meetings; prescribe regulations for balloting, and generally conduct the business affairs of the Society. The record of the proceedings of the Board of Direction, made since the last regular meeting of the Society, shall be read at each regular meeting.

Section 19.—A nomination or proposal shall be presented at the next regular meeting of the Board of Direction following its receipt; the Board of Direction shall thereupon send to all Members of the Society a notice that such person is a candidate for election. Not less than thirty days thereafter the Board shall consider the application, and if approved and the applicant (if for admission as Member, Associate or Junior) classed with his consent, a day shall be fixed for the ballot to be canvassed, which shall be at a regular meeting of the Society, not less than twenty-five days thereafter.

Section 20.—When such day is fixed, the Secretary shall conspicuously post in the rooms of the Society the name and class of the nominee or applicant, his residence, occupation, and the names of his proposers; he shall mail to each Member whose address is known a notice of the same, with a letter-ballot in such form as shall be prescribed by the Board of Direction, and request the recipient to vote thereby or in person in the usual manner on the day fixed, when an open canvass of the votes cast shall be made, and the result announced.

Section 21.—The proposers of any rejected candidate may, within three months after such rejection, lay before the Board of Direction written evidence that an error was then made, and ask for a reconsideration of the proposal, which shall be granted on sufficient grounds, and if a ballot has been taken, another shall be ordered.

Section 22.—Persons who shall be elected Members of this Society after six months of any fiscal year shall have expired, shall pay only one half of the amount of dues for that fiscal year otherwise required.

Section 23.—Special committees to report upon engineering subjects shall be authorized only by a majority of the votes cast by the Society, and in the following manner: Any resolution proposing such a committee shall be referred to the

Board of Direction, which shall examine the same and report to the Society a concise statement of the argument for and against the appointment of such committee, which statement shall be printed and issued to the Society with a letter-ballot; or, if the Board fails to report within one month, the letter-ballot shall be issued without comment.

Section 24.—1st. Votes for officers of the Society at the Annual Meeting in January may be sent by mail, inclosed in two sealed envelopes, the outer one of which shall be indorsed by the voter's signature, and all such votes shall be counted on the first ballot for officers.

2nd. If it should appear that for any office a majority of the votes cast was not for one person, the meeting shall proceed to vote by ballot in the usual way for such officer, the choice of candidates being limited to the two persons not elected for whom the greatest number of votes had been previously cast for such office. When two or more persons have the highest and an equal number of votes at any election for officers, the Society shall elect the officer from among those having the highest and equal number of votes.

3d. At the Annual Convention a Nominating Committee of five Members, not officers of the Society, shall be appointed by the Convention. This committee shall present to the Board of Direction, on or before the first day of November ensuing, the names of the persons selected by them as candidates for officers. Of these, at least one Vice-President, three Directors, the Secretary and the Treasurer shall be Resident Members.

4th. The Board of Direction shall thereupon cause such list to be posted in the rooms of the Society, and shall issue, at least twenty days before the Annual Meeting, a letter-ballot containing the names thus proposed.

5th. Any five Members, not officers of the Society, may present to the Board of Direction, on or before December 1st, a list of names proposed by them for officers, which lists or list shall also be issued for ballot.

6th. No member of any Nominating Committee shall be presented by such committee as a candidate for office.

Section 25.—The President of the Society shall have the general supervision of of the business and correspondence of the Society; he shall be an honorary member of all committees, but shall have no vote on such committees.

In all cases where the By-Laws or resolutions of the Society or of the Board of Direction require specific duties to be performed by the President, the senior resident Vice-President present shall perform such duties in absence of the President, on receiving notice from the President to perform such duties.

Section 26.—Additions and amendments to these By-Laws shall be proposed in writing and seconded at a regular meeting, and then submitted to vote of the Members by letter-ballot. The vote shall be canvassed at the second regular meeting thereafter, and two-thirds of all the votes cast shall be necessary for the adoption of any such addition or amendment.

APPENDIX.

of the American Society of Civil Engoverned by the Constitution and By formed, or as they may be hereafter altaid in advancing the objects of the said thereof as often as I conveniently can writing to the Secretary for the time be name therefrom, I shall (after the paymat that period) be free from this obligation.	aly elected a
Witness my hand this	
day 01, 16	
[Form B.]	American Society of Civil Engineers,
Sir:	New York,
American Society of Civil Engineers. To confirm this election it is necessary.	ere elected a
Res	spectfully,
	Secretary.
[FORM C.]	American Society of Civil Engineers, New York,
me to inform you that your annual continuous, the amount of regulations of the Society, unless the	rican Society of Civil Engineers has directed ntribution thereto has been in arrears since being
	spectfully,
	Secretary.

FORM OF APPLICATION.

The proposal for Member, Associate, or Junior, shall contain a statement over the candidate's signature, of his age, residence, the nature and term of his professional service, and that he will conform to the requirements of membership if elected.

STATEMENT.

I [Full Christian names and surname of candidate] residing at [City or lown, county, State], being desirous of admission into the American Society of Civil Engineers as [State class of membership], submit the following as my professional record:

I was born at [Place of birth] on [Date of birth], 18 , [To embody for all classes of members, except Fellows, a concise narrative, with dates, of the candidate's professional career, specifying the positions he has held, the nature and extent of the works in or upon which he has been engaged, giving an idea of their magnitude and importance. All proper names, names of railroads, etc., must be written without abbreviation.]

FOR MEMBER, ASSOCIATE OR JUNIOR.

I will conform to the requirements of membership, if elected as [State class of membership].

[The applicant will sign here his regular signature, and give his present post-office address.]

Dated18

On the grounds stated, and because we believe him from personal knowledge to be in all respects a proper person to be admitted into the American Society of Civil Engineers, we hereby recommend [Full name of candidate] of [Residence of candidate], for election as [Class of membership].

[To be signed by at least five Members of the Society, personally acquainted with the appplicant.

[Nominations for Honorary Members and for Fellows may be made upon the preceding form of application, but neither Honorary Members nor Fellows are required to present themselves as candidates; those making the nomination are to state the ground therefor. In using the form for this purpose the word "I" will be omitted in the statement, the word "worthy" substituted for "desirous," and the word "we" inserted before the word "submit." The nominee need not sign, but those making a nomination for a Fellow must certify that the nominee will accept if elected.]

[Blanks are furnished on application to the Secretary.]

FEES, DUES, CERTIFICATE, BADGE.

Ordinary Fees and Dues,	RESIDENT.			Non-Resident.		
ORDINARI FEES AND DUES.	Members.	Associates	Juniors.	Members.	Associates	Juniors.
Entrance Fee Yearly Assessment	\$30,00 25,00	\$20.00	\$20 00 15.00	\$30 00 15.00	\$20.00	\$20.00
Payable upon Election		\$35 0)	\$35 00	\$45.00	\$30.00	\$30 CO

Annual Contributions are due on the 1st day of January, and are payable in advance.

Persons elected Members, after six months of any fiscal year have expired, pay only one-half of the amount of dues for that fiscal year, otherwise required.

Fellowship fee \$150 in one payment for life.

Provisions for Compounding Dues,—Any Member of the Society, not in arrears for dues, may compound for the payment of all future annual dues, except as hereinafter provided, by the payment of two hundred and fifty dollars.

Provided, that all Resident Members, or those who may hereafter become such, shall be and remain liable to the annual payment of the difference between the annual dues of Resident and Non-Resident Members, as the same now is, or may be established from time to time; but any Member may at any time compound for the future payment of all annual dues of every nature and kind, by the payment of seventy-five dollars in addition to the two-hundred and fifty dollars hereinbefore provided for.

Provided, however, that each person duly elected a Member shall pay the

entrance fee, and also the annual dues for the current year of his election.

Provided, also, that any Member desiring to compound for future annual dues, shall have paid the annual dues for the current year before the compounding sum

may be available.

Members compounding shall sign an agreement that they will be governed by the Constitution and By-Laws of the Society as they are now formed, or as they may be hereafter altered, amended or enlarged; and that in case of their ceasing to be Members from any cause whatever, the amount theretofore paid by them for compounding, and for entrance fees and annual dues, shall be the property of the Society.

Certificates of Membership.—The prices, to cover cost of Certificates, are as follows:

Parchment	 	 	25
Parchment Paper.	 	 1	25
Plate Paper	 	 1	25

Badge.—This is of gold and enameled, with the Member's name and a number engraved on the back, and is mounted either as an ordinary pin, a scarf pin, or a watch charm, as directed. The price is five dollars, which includes engraving the name and number. Badges can be secured only by means of an order signed by the Secretary.

REMITTANCES.—All remittances should be made payable to the order of the American Society of Civil Engineers. They should be in drafts on New York, or in Postal Money Orders payable at the New York Post Office (not at a branch office).

THE NORMAN MEDAL.

CODE OF RULES FOR ITS AWARD,

- I.—Competition for the Norman Medal of the American Society of Civil Engineers shall be restricted to Members of the Society.
- II.—There shall be one gold medal, and only one, struck for each and every fiscal year of the Society, and awarded as hereinafter provided. The dies therefor shall be with the Superintendent of the United States Mint at Philadelphia, in trust exclusively for the above purpose. Such medal shall be of a cost equal to the annual interest received upon \$1,000 of the Consolidated Stock of the City of New York, Certificate No. 179, of the additional new Croton Aqueduct Stock of the City of New York, authorized by an Act of the Legislature of the State of New York, Chap. 230, passed April 15th. 1870, dated November 17th, 1873, now held in trust by the Treasurer of this Society, and so held solely for this purpose, and shall be executed upon his order.
- III.—All original papers presented to the Society by Members of any class, during the year for which the medal is awarded, shall be open to the award, provided that such papers shall not have been previously contributed in whole or in part to any other association, nor have appeared in print prior to their publication by the Society, nor have been presented to the Society in any previous year.
- IV.—The Board of Censors to award the medal shall consist of three Members of the Society, to be designated by the Board of Direction. The Secretary of the Society shall act as Secretary to the Board of Censors.
- V.—The medal shall be awarded to such paper as the said Board shall judge to be worthy of special commendation for its merits as a contribution to engineering science, not merely relatively as compared with others presented during the same year, but as exhibiting the science, talent or industry displayed in the consideration of the subject treated of, and for the good which may be expected to result from the discussion and the inquiry.
- VI.—In case no paper presented during the year shall be deemed of sufficient value to receive an award, the amount of the interest of the fund for that year shall be expended by the Board of Direction in the purchase of books, to be offered as a premium for the second best paper in the next year in which more than one paper of sufficient value may be presented.
- VII.—The medal year shall terminate on the first day of August, and the award shall be announced at the annual meeting.
- VIII.—The Treasurer of this Society shall cause the medal to be prepared and delivered to, or deposited to the order of, the successful competitor, within two months after the annual meeting at which the same shall have been awarded.

THE ROWLAND PRIZE.

CODE OF RULES FOR ITS AWARD.

Not more than one prize shall be awarded each year for papers prepared during the year. The year shall terminate on the first day of August, and the award shall be announced at the annual meeting in January.

The prize shall consist of fifty dollars in cash.

The award shall be made by a committee consisting of the Secretary and two Members of the Society, to be appointed by the Board of Direction.

The prize shall be awarded to such paper as the committee deem most worthy of such recognition, the preference being given to papers describing in detail accomplished works of construction, their cost and manner of execution, and the errors in design and execution.

ABBREVIATIONS FOR DESIGNATING MEMBERSHIP.

The Board of Direction has declared the following as the authorized abbreviations to be used by Members of the Society having occasion to designate themselves as such:

FOR HONORARY MEMBERS, - - Hon. M. Am. Soc. C. E.
FOR MEMBERS, - - - - - M. Am. Soc. C. E.
FOR ASSOCIATES, - - - - ASSOC. Am. Soc. C. E.
FOR JUNIORS, - - - - - Jun. Am. Soc. C. E.
FOR FELLOWS, - - - - F. Am. Soc. C. E.

The Board of Direction requests the use of the above forms in all cases.

PROVISIONS OF THE LAWS OF THE STATE OF NEW YORK APPLICABLE TO THE AMERICAN SOCIETY OF CIVIL ENGINEERS.

Originally Incorporated 1852.

Incorporated under these Laws, 1877.

REVISED STATUTES OF THE STATE OF NEW YORK. VIHITH EDITION, FEBRUARY 1ST, 1889, PART I. CHAPTER XVIII. TITLE 4c. ARTICLE 3D. L. 1884, CHAP. 319.

AN ACT FOR THE INCORPORATION OF BENEVOLENT, CHARITABLE, SCIENTIFIC AND MISSIONARY SOCIETIES.

Corporators: Objects: Certificate, contents of; Change of Title of Managing Board, or increase or decrease of number of Members: consent of Justice of Supreme Court. Section 1.

Any five or more persons of full age, citizens of the United States, a majority of whom shall be citizens of, and resident within this State, who shall desire to associate themselves for benevolent, charitable, literary, historical, scientific, missionary or mission or Sunday-school purposes, or for the purpose of mutual improvement in religious knowlege, or for the furtherance of religious opinion, or for the purpose of promoting and cultivating the fine arts by establishing a gallery or collections of pictures and statuary, including other objects of the fine arts, and for the purpose of maintaining a library, or as a society for the prevention of crime, or for any two or more of such objects, may make, sign and acknowledge before any officer authorized to take the acknowledgment of deeds in the State, and file in the office of the Secretary of State, and also in the office of the Clerk of the County in which the business of such society is to be conducted, a certificate in writing, in which shall be stated the name or title by which such society shall be known in law, the particular business and objects of such society, the number of trustees, directors or managers to manage the same, and the names of the trustees, directors or managers of such society for the first year of its existence. And any corporation organized, or which may hereafter be organized under the provisions of this Act, may from time to time change the title of the members of their managing board, or increase or decrease the number thereof to not less than five, on the consent in writing of not less than two-thirds of their number. A certificate of such change, executed as herein above provided for the original certificate, shall be filed with the original certificate; but neither such original certificate nor such amendment thereof shall be filed unless by the written consent and approbation of one of the Justices of the Supreme Court of the district in which the place of business or principal office of such company or association shall be located, to be endorsed on such certificate.

[Thus amended by L. 1883, ch. 446, superseding L. 1881, ch. 526.]

Corporation then formed; powers; property and income limited. § 2.—Upon filing a certificate as aforesaid, the persons who shall have signed and acknowledged such certificate, and their associates and successors, shall thereupon by virtue of this Act, be a body politic and corporate by the name stated in such certificate, and by that name they and their successors shall and may have succession, and

shall be persons in law capable of suing and being sued, and they and their successors may have and use a common seal, and the same may alter and change at pleasure; and they and their successors, by their corporate name shall, in law, be capable of taking, receiving, purchasing and holding real and personal estate for the purposes of their incorporation, and for no other purpose, to an amount not exceeding in the aggregate the sum of two million dollars in value; but the clear annual income of such real and personal estate shall not exceed the sum of two hundred thousand dollars; to make by-laws for the management of its affairs, not inconsistent with the constitution and laws of this State or of the United States; to elect and appoint the officers and agents of such society, for the management of its business, and to allow them a suitable compensation.

[Thus amended by L. 1885, ch. 88, superseding L. 1872, ch. 649.]

Election of Trustees, etc. § 3.—The society so incorporated may annually elect, from its members, its trustees, directors or managers, at such time and place, and in such manner, as may be specified in its by-laws, who shall have the control and management of the affairs and funds of said society, a majority of whom shall be a quorum for the transaction of business, if not otherwise provided in the by-laws, except that no such purchase, lease or sale of real estate shall be made unless two-thirds of the whole number are present at the meeting at which it is ordered; and whenever any vacancy shall happen among such trustees, directors or managers, by death, resignation, or neglect to serve, such vacancy shall be filled in such manner as shall be provided by the by-laws of such society.

[Thus amended by L. 1853, ch. 487.]

Provision in case no election is made. § 4.—In case it shall at any time happen that an election of trustees, directors or managers shall not be made on the day designated by the by-laws, said society for that cause shall not be dissolved, but it shall and may be lawful on any other day to hold an election for trustees, directors or managers, in such manner as may be directed by the by-laws of such society.

Restriction. § 5.—The provisions of this Act shall not extend or apply to any association or individuals who shall, in the certificate filed with the Secretary of State, or with the County Clerk, use or specify a name or style the same as that of any previously existing incorporated society in this State.

[Thus amended by L. 1861, ch, 239.]

Real or personal properly may be held, elc.: proviso. § 6.—Any corporation formed under this Act shall be capable of taking, holding or receiving any property, real or personal, by virtue of any devise or bequest contained in any last will or testament of any person whatsoever, the clear annual income of which devise or bequest shall not exceed the sum of ten thousand dollars; provided, no person leaving a wife or child or parent, shall devise or bequeath to such institution or corporation more than one-fourth of his or her estate, after the payment of his or her debts, and such devise or bequest shall be valid to the extent of such one-fourth; and no such devise or bequest shall be valid in any will which shall not have been made and executed at least two months before the death of the testator.

Liability of Trustees. § 7.—The trustees of any company or corporation organized under the provisions of this Act, present at any meeting authorizing the contracting of any debt, and acquiescing in the passage of any resolution or order authorizing the same, shall be jointly and severally liable for any such debt, provided a suit for the collection of the same shall be brought within one year after the debt shall become due and payable.

[Thus amended by L. 1853, ch. 487.]

Institutions subject to Visitation by Justices of Supreme Court. § 8.—All institutions formed under this Act, together with their books and vouchers, shall be subject to the visitation and inspection of the Justices of the Supreme Court, or by any person or persons who shall be appointed by the Supreme Court for that purpose; and it shall be the duty of the trustees, or a majority of them, in the month of December in each year, to make and file in the County Clerk's office where the original certificate is filed, a certificate under their hands, stating the names of the trustees and officers of such association or corporation, with an inventory of the property, effects and liabilities thereof, with an affidavit of the truth of such certificate and inventory, and also an affidavit that such association or corporation has not been engaged directly or indirectly in any other business than such as is set forth in the original certificate on file.

General powers. § 9.—Every corporation formed under this act shall possess the powers and be subject to the provisions and restrictions contained in the third title of the eighteenth chapter of the first part of the Revised Statutes.

[Thus amended by L. 1849, ch. 273.]

Right to repeal. § 10.—The Legislature may at any time amend, annul or repeal any incorporation formed or created under this Act.

Increase of Trustees. § 11.—The number of trustees, directors or managers in any corporation which may have been heretofore, or which may hereafter be organized under the said Act, may be increased as follows: The existing trustees of any such corporation, or a majority thereof, shall make and sign a certificate declaring how many trustees, directors or managers the corporation shall have in the future management of its business, and stating the names of the new or additional trustees, directors or managers, which certificate shall be acknowledged or be proved by a subscribing witness, and shall be filed in the office of the Secretary of State, and also in the office of the Clerk of the County where the original certificate of incorporation was filed; and from and after the filing of such certificate, the trustees, directors or managers of such corporation shall be deemed increased to the number therein stated, and the persons so named shall be trustees until a new election of trustees, directors or managers shall be had according to said Act and the by-laws or regulations of said corporation.

[Added by L. 1875, ch. 452.]

Extending corporate existence. § 13.—The term of existence of any corporation which may have heretofore been, or which may hereafter be organized, under this act, may be extended in the following manner: The trustees of such corporation, or a majority of them, shall make and sign a certificate declaring the term,

not exceeding fifty years, for which the said corporation is to be continued, which certificate shall be duly acknowledged, and be filed in the office of the Secretary of State, and also a copy thereof in the office of the Clerk of the County where the original certificate of incorporation was filed; and from and after the filing of such certificate and copy, the said corporation shall be deemed continued for the term of years therein specified.

[Added by L. 1876, ch. 190.]

Societies may re-incorporate themselves. § 2.—The trustees, directors, or stock-holders of any existing benevolent, charitable, scientific, or missionary corporation may, by conforming to the requirements of the first section of the Act hereby amended, re-incorporate themselves or continue their existing corporate powers for the period limited by the Act hereby amended, and all the property and effects of such existing corporation shall vest in and belong to the corporation so re-incorporated or continued.

By application to the Supreme Court. Section 1.—It shall be lawful for the Supreme Court of this State, upon the application of any benevolent, charitable scientific, or missionary society incorporated by law, in case it shall deem it proper, to make an order for the mortgaging of any real estate belonging to said corporation, and to direct the application of the moneys arising therefrom, by the said corporation, to such uses as the same corporation, with the consent and approbation of the said Court, shall conceive to be most for the interest of the society to which the real estate so mortgaged belongs.

By application to the Supreme Court. Section 1.—It shall be lawful for the Supreme Court of this State, upon the application of three-fourths of the trustees of any benevolent, charitable, scientific, missionary society or orphan asylum incorporated by law, in case it shall deem it proper, to make an order for the leasing or sale and conveyance of any real estate belonging to such corporation, and to direct the application of the moneys arising therefrom by the said corporation to such uses as to the said Court shall seem to be most for the interest of the corporation to which the real estate so leased or conveyed belongs.

Act extended to educational institutions and parsonages. Section 1.—The "Act for the Incorporation of Benevolent, Charitable, Scientific, and Missionary Purposes," passed April twelfth, eighteen hundred and forty-eight, shall be deemed to authorize the incorporation of any society for the purpose of establishing and maintaining any educational institution or chapel, or place of Christian worship, or any parsonage, rectory, or official residence of any bishop, pastor or minister of any Christian church or association.

Classification of trustees. § 2.—It shall be lawful for the trustees or managers of any society incorporated under the Act aforesaid, or under this Act, to provide in their by-laws for the classification and the mode of perpetuating the board of trustees or managers, and filling vacancies therein, as the same may occur.

Existing societies. § 5.—This Act shall apply as well to societies heretofore organized under the aforesaid Act, as to those which shall be hereafter organized.

PROVISIONS OF TITLE III. APPLICABLE TO THIS SOCIETY.

Section I. Every corporation, as such, has power,

- 1. To have succession by its corporate name, for the period limited in its charter; and when no period is limited, perpetually:
 - 2. To sue and be sued, complain and defend, in any court of law or equity:
 - 3. To make and use a common seal, and alter the same at pleasure:
- 4. To hold, purchase and convey such real and personal estate as the purposes of the corporation shall require, not exceeding the amount limited in its charter:
- 5. To appoint such subordinate officers and agents as the business of the corporation shall require, and to allow them a suitable compensation:
- To make by-laws, not inconsistent with any existing law, for the management of its property, the regulation of its affairs, and for the transfer of its stock.
- § 2. The powers enumerated in the preceding section shall vest in every corporation that shall hereafter be created, although they may not be specified in its charter or in the act under which it shall be incorporated.
- § 3. In addition to the powers enumerated in the first section of this title, and to those expressly given in its charter, or in the act under which it is or shall be incorporated, no corporation shall possess or exercise any corporate powers, except such as shall be necessary to the exercise of the powers so enumerated and given.
- § 9. Upon the dissolution of any corporation created, or to be created, and unless other persons shall be appointed by the Legislature, or by some Court of competent authority, the directors or managers of the affairs of such corporation, at the time of its dissolution, by whatever name they may be known in law, shall be the trustees of the creditors and stockholders of the corporation dissolved, and shall have full power to settle the affairs of the corporation, collect and pay the outstanding debts, and divide among the stockholders the moneys and other property that shall remain, after the payment of debts and necessary expenses.
- § 10. The persons so constituted trustees shall have authority to sue for and recover the debts and property of the dissolved corporation by the name of the trustees of such corporation, describing it by its corporate name, and shall be jointly and severally responsible to the creditors and stockholders of such corporation to the extent of its property and effects that shall come into their hands.

List of Members.

MAY 1889.

It is particularly requested that every change of address be immediately communicated to

THE SECRETARY,

American Society of Civil Engineers, 127 East Twenty-third Street,

NEW YORK, N. Y.

American Society of Civil Engineers.

OFFICERS, 1889.

MAX J. BECKER, President.

ALPHONSE FTELEY, E. L. CORTHELL, Vice-Presidents.

JOHN BOGART, Secretary and Librarian.

GEORGE S. GREENE, Jr., Treasurer.

DIRECTORS.

CHARLES B. BRUSH, ELIOT C. CLARKE, WALTER KATTÉ, ROBERT E. McMATH,

WILLIAM P. SHINN,

PRESIDENTS OF THE SOCIETY.

James Laurie,*

November 5, 1852, to November 6, 1867.

James P. Kirkwood,*

November 6, 1867, to August 5, 1868.

WILLIAM J. MCALPINE,

August 5, 1868, to November 3, 1869.

ALFRED W. CRAVEN,*

November 3, 1869, to November 1, 1871. Horatio Allen,

November 1, 1871, to November 5, 1873.

JULIUS W. ADAMS.

November 5, 1873, to November 3, 1875.
GEORGE S. GREENE.

November 3, 1875, to November 7, 1877.

E. S. Chesbrough,*

November 7, 1877, to November 6, 1878, W. Milnor Roberts.*

November 6, 1878, to November 5, 1879.

ALBERT FINK,

November 5, 1879, to November 3, 1880.

JAMES B. FRANCIS.

November 3, 1880, to January 18, 1882.

ASHBEL WELCH,*

January 18, 1882, to September 25, 1882.† CHARLES PAINE,

January 17, 1883, to January 16, 1884.

DON J. WHITTEMORE,

January 16, 1884, to January 21, 1895.

Frederic Graff,

January 21, 1-85, to January 20, 1886. HENRY FLAD.

January 20, 1886, to January 19, 1887.

WILLIAM E. WORTHEN,

January 19, 1887, to January 18, 1898. Thomas C. Keefer,

January 18, 1888, to January 16, 1889.

Max J. Becker, January 16, 1889.

Deceased

[†] Mr. Ashbel Welch died Septeml er 25, 1882, during his term of office as President.

List of Members

HONORARY MEMBERS.

[Hon. M. Am. Soc. C. E.]

Name.	Address.		ate onbers	
Adams, Julius W.*	(Past-President.) Cons. Eng. Dept. Public Works, 31 Chambers st.,		2.0	460
	New York City.	Oct.		
ALLEN, HORATIO, †	(Past-President.) South Orange, N.J.	Mar.	4,	1874
Duane James C.	Brig-Gen. U. S. A., Pres. Acqueduct Commission, Room 209 Stewart			
	Bldg., New York City.	Nov.	20,	1886
Greene, George S.*	(Past-President.) 31 Boyken st.,			
	Morristown, N. J.	Oct.	26,	1888
Hawkshaw, Sir John	F. R. S., F. G. I., Knight Commander of the Brazilian Order of The Rose, 33 Great George st.,			
	London, S. W., England.	Nov.	3,	1880
McAlpine, William J.‡	(Past-President.) Franklin and Pendleton aves., New Brighton, Rich-			
	mond Co., N. Y.	Oct.	26,	1888
NEWTON, JOHN	Pres. Panama R. R., Mills Bldg.,			
<i>'</i>	New York City.	April	30,	1884
Robinson, Moncure	1319 Spruce st., Philadelphia, Pa.	July	6,	1853
WRIGHT, HORATIO G.	Brig. and Bvt. MajGen., U. S. A.,			
,	1203 N. st., N. W., Washington, D.C.	Marc	h 3,	1880

CORRESPONDING MEMBERS.

Name.	Address.	D: Mem	ate o bers	
Fox, Sir Douglas	Victoria Mansions, 28 Victoria st., Westminster, London, England.	June	7,	1871
GLEIM, CHARLES O.	Eng. Bau-Deputation, Hamburg, Germany.	April	5,	1876
Pontzen, Ernest	Civil and Cons. Eng., 3 Avenue du Coq. Paris, France.	Jan.	5,	1876

^{*} Elected Member Nov. 5, 1352. † Elected Member Dec. 4, 1867. ‡ Elected Member Feb. 3, 1852.

МЕМВЕRŞ.

[M. Am. Soc. C. E.]

Name.	Address.	Da Mem	te of bers	
Abbot, Frederic V.	Capt. Corps of Engs., U. S. A., U.S. Eng. Office, 3 Southern Wharf, Charleston, S. C.	Dec.	3,	1884
ABERT, S. THAYER	U. S. Agent, 810 Nineteenth st., N. W., Washington, D. C.	Sept.	Í	
Ackenheil, Charles	Ch. Eng. New York Extension Baltimore and Ohio R. R., Staten Island Rapid Transit R. R., Baltimore &	•		
	New York R. R., Elizabeth, N. J.	Feb.		1887
AINSWORTH, DANFORTH H.	Newton, Iowa.	March	_ 3,	1886
Alden, John F.	Proprietor Rochester Bridge and Iron			
	Works, Rochester, N. Y.	July	6,	1887
Aldrich James C.	North Scituate, R. I.	May	7,	1873
Aldrich, Truman H.	92 Southern ave., Mt. Auburn, Cin-			
	cinnati, Ohio.	May	4,	1881
ALLEN, CHARLES A.	City Eng., Worcester, Mass.	June,	4,	1879
ALLEN, C. FRANK	Asst. Prof. R. R. Engineering, Mass.			
	Inst. Tech., Boston, Mass.	Feb.	6,	1878
ALLEN, CALVIN H.	Pres. Western New York & Pennsylvania R. R., Mills Building, 15			
	Broad st., New York City.	Sept.	7.	1887
A T. san . D	O. Parll at Observation S. C. J.	March	5,	1879
Allen, James P.	9 Bull st., Charleston, S. C. M.	June	4,	1884
Allen, Kenneth,	Hydr. Eng., 310 Baird Bldg., Kansas			
	City, Mo.	May	2,	1888
Allen, Theodore	South St. Louis, Mo.	Nov.	16,	1870
Ambrose, William C.	Div. Road Mast. Southern Pacific			
	R. R., Tulare, Cal.	April	4,	1888
Amweg, Frederick J.	Ch. Eng. City Ave. and Gt'n Bridge Co., Keystone Bank Bldg., Phila-	37	_	4.00
	delphia, Pa.	May	7,	1888
Anderson, Latham	Johnston Bldg., Room 49, Cincinnati, Ohio.	May	2,	1888
Andrews, David H.	Proprietor of Boston Bridge Works, 70 Kilby st., Boston, Mass.	Sept.	2,	1885

		70.		C
Name.	Address	Mem	ate o bers	
Andrews, Horace	City Eng., Albany, N. Y.	April	6,	1887
Andrews, John W.	Ch. Eng. Columbus, Fort Wayne &			
	Western Ry., Covington, Ky.	March	1,	1882
Annan, Charles L.	Asst City Eng., St Paul, Minn.	July	-1,	1888
APPLETON, ELLERY C.	Revere, Mass.	June	3,	1885
Appleton, Thomas	Res. Eng. Union Pacific Ry., Omaha,			
	Neb.	April	4.	1883
Archbald, James	Cons. Eng. Delaware, Lackawanna &			
	Western R. R., Scranton, Pa.	May	15,	1872
Archer, William	Asst. Eng. Cincinnati, Washington			
	& Baltimore R. R., Cincinnati, Ohio.	March	2,	1881
Archibald, Peter S.	Ch. Eng. Intercolonial Ry., Moncton,			
	N. B., Canada.	Jan	7,	1885
Armington, James H.	Pres. and Eng. Brooklyn Gas Light	T 1		
	Co., Brooklyn, N. Y.	July	6,	1870
ARTINGSTALL, SAMUEL G.	Cons. Eng., 28 Rialto Bldg., Chicago,	()		4.0
American Phase M	Ill.	Oct,	6,	1886
Ashmead, Frank M.	Res. Eng. Allegheny Valley R. R., Pittsburgh, Pa.	Tude	10	1887
Aspinwall, Thomas	12 Pearl st., Boston, Mass.	July May		1888
Asserson, Peter C.	Civil Eng., U. S. N., U. S. Navy Yard.	211(1)	Ξ,	1000
Troping, I Elen C.	N. Y.	July,	5.	1882
ATKINSON, JOHN B.	Vice-Pres. and Treas. St. Bernard	στα,,	-7,	1002
, , , , , , , , , , , , , , , , , , , ,	Coal Co., Earlington, Ky.	Sept.	5.	1877
ATWATER, ALMON B.	Supt. Chicago & Grand Trunk and	-1	-,	
	Detroit, Grand Haven & Milwaukee			
	Rys., Detroit, Mich.	May	õ,	1886
ATWOOD, WILLIAM H.	79 Adelbert st., Cleveland, Ohio.	May	4,	1881
Auchincloss, William S.	209 Church st., Philadelphia, Pa.	Feb.	17,	1869
Aulls, Herbert L.	Pioneer Bldg., Room 33, Denver, Colo.	July	1,	1885
Axtell, Decatur	Receiver Richmond & Alleghany R. R.,			
	Richmond, Va.	March	3,	1886
Babcock, Henry N.	U. S. Engineer's Office. Army Bldg.,			
Bacon, John W.	39 Whitehall st., New York City. Danbury, Conn.	Sept. July		$\frac{1884}{1877}$
BAKER, WILLIAM H.	Fitchburg, Mass.	Sept.		1882
Baldwin, Fred. II.	101 Commercial st., Greenpoint, N.Y.	Nov.		1884
Baldwin, Thomas W.	Exchange Block, Room 1, Bangor, Me.	April	,	1884
BALDWIN, WM. HENRY	Manor Hall, Yonkers, N. Y.	June		1888
BALDWIN, WILLIAM J.	Advisory Eng. Warming and Ventil-			
	ating Buildings, etc., 277 Pearl st.,			
	New York City.	Sept.	5,	1888
Ballard, Robert,	Rockhampton, Queensland, Australia.	Sept	1,	1880
Barlow, John Q.	(Care V. G. Bogue, Ch. Eng., J.	April	7.	1886
	U. P. Ry.) Omaha, Neb. M.	July	4,	1888

Name.	Address.		ate o	
Barnard, Augustus P.	(Care of Hawkesworth and Rankine.)			Î
Barnard, John F.	115 Broadway, New York City. Pres. and Gen. Man. Ohio & Missis-	April	õ,	1876
17216124117, 711111 I ;	sippi Ry., Cincinnati, Ohio.	Sept.	1.	1881
Barnes, Oliver W.	57 Broadway, New. York City.	July	6,	1881
Barr, Jacob N.	Supt. Motive Power Chicago, Milwaukee and St. Paul Ry., Milwaukee, Wis,	Nov.	7.	1888
Bartlett, Winthrop	Eng. in chg. Olive st. Cable Line, Missouri R. R., 3303 Olive st., St. Louis, Mo.	Jan.		1889
Bassel, Robert	81 Bulow st., Berlin, W., Germany.	May		1888
Bassett, Carroll Ph.	Cor. Broad and Market sts., Newark, N. J.	Nov.	ĺ	
Bates, Charles J.	Civil Eng., 63 Broadway, (P. O. Box		ŕ	1888
Bates, Onward	2702.) New York City. Eng. and Supt. Bridges and Bldgs. Chicago, Milwaukee & St. Paul Ry.,	May		1889
	Milwankee, Wis.	Jan.	,	1882
Baxter, George S.	Treas. Northern Pacific R. R., J. 17 Broad st., New York City. M.	May May		1875 1876
Becker, Max J.	(President.) Ch. Eng. Pittsburgh, Cincinnati & St. Louis R. R., Pitts-		,	
Beckwith, Leonard F.	burgh, Pa. Ch. Eng. Consolidated Telegraph & Electrical Subway Co., I8 Gortlandt	Aug.	7,	1872
Belknap, Morris S.	st., New York City. Gen. Man. Central R. R. & Banking	Dec.	ĺ	1868
	Co. of Georgia, Savannah, Ga.	Ang.	- 1	1872
Bell, Andrew,	Cons. Eng., Almonte, Ontario, Canada.	Sept.	5,	1883
Bell, Henry P. Bement, Robert B. C.	Whitehouse, Alexandra Drive, Sefton Park, Liverpool, England, Cor. 4th and Waconta sts., St. Paul,	June	4.	1854
	Minn.	Sept.	7.	1887
Benson, Frederick S.	Eng. Nassau Gas Light Co., cor, Kent ave. and Cross st., Brooklyn, N. Y.	Feb.	7.	1877
Bent, Cornelius C. F.	Supt. Ohio & Mississippi Ry., Cincinnati, Ohio.	May	1,	188.)
BENYAURD, WILLIAM H. H.	Maj. Corps. Engs. U. S. A., San Francisco, Cal.	Nov.	3,	1875
BENZENBERG, GEORGE H. BERGEN, VAN BRUNT	City Eng., Milwaukee, Wis. Prin, Asst. Eng., Dept. of City Works, Brooklyn. (Residence, Bay Ridge,	May	2,	1883
	Kings Co., N. Y.)	June		1868
Berrian, Richard M. Biddle, William F.	255 West 128th st., New York City. 209 South Third st., Philadelphia, Pa.	May June		1887 1884

Name.	${\rm Add}{\bf ress.}$		ate o	
BILLIN, CHARLES E.	95 Fifth ave., Room 63, Pitts- \ J.	April	õ,	1876
		July		1878
BISHOP GEORGE H.	Eng. Water Works, Middletown, Conn.	Ang.	7,	1872
Bishop, Thomas S.	Eng. Russell & Erwin Mfg. Co., New Britain, Conn.	Sēpt.	2,	1885
Bissell, H.	Ch. Eng. Boston and Maine R. R., Boston, Mass.	Sept.	15,	1869
BIXBY, WILLIAM H.	Capt. Corps of Engs., U. S. A., U. S. Eng. Office, Wilmington, N. C.	April	5	1882
BLACK, WILLIAM M.	Capt. Corps of Engs., U. S. A., P. O. Drawer R., St. Augustine, Fla.	June		1888
Blackford, Francis W., Jr.		April		1888
Blackwell, Charles	(Care Am. Soc. C. E.,) 127 East 23d	-113111	1,	1000
	st., New York City.	Sept.	7,	1881
Blaisdell, Anthony H.	5602 South Broadway, St. Louis, Mo.	March	3,	1880
Blake, Edward J.	Ch. Eng. Hannibal & St. Joseph R.R.			
	and Kansas City, St. Joseph and			
	Council Bluffs R. R., St. Joseph, Mo.	April	- 1	1889
Bland, George P.	3214 Woodland ave., West J.	April		1875
	* '	May		1881
Bland, John C.	257 South Fourth st., Philadel- J.	June	- 1	1875
	1	June	4,	1879
BLICKENSDERFER, JACOB	Cons. Eng. Union Pacific R. R., Oak-	7	4	4004
D B	land, Laclede Co., Mo.	June		1881
BLICKENSDERFER, ROBERT	Oakland, Laclede Co., Mo.	June	- /	1881
BLISS, HENRY I. BOGART, JOHN	La Crosse, Wis.	Sept.	Э,	1883
DOGARI, JOHN	(Secretary.) 127 East Twenty-third st., New York City.	Feb.	17,	1869
Bogue, Virgil G.	Ch. Eng. Union Pacific Ry., Omaha,		,	
	Neb.	Sept.	15,	1869
BOLLER, ALFRED P.	Civ. Eng., 71 Broadway, New York			
Bolton, Channing M.	City Ch. Eng. Richmond & Danville R. R.,	Dec.	4,	1867
DOLION, CHANNING M.	13(#) Penn. ave., Washington, D.C.	Jan.	4.	1888
Bond, George M.	Man. Gauge Dept. The Pratt and Whitney Co. (Residence, 141 Wash-			
	ington st.), Hartford, Conn.	Feb.	2,	1887
BONNETT, WILLIAM W.	Civ. Eng., Waterbury, Conn.	Sept.	4,	1872
BONNYN, WM. WINGFIELD	Cons. Eng., P. O. Box 100, Halifax, N. S.	Jan.	.1	1882
Bontecou, Daniel	Civ. Eng., P. O. Box L., Kansas City,	7((21)	1,	1(2
		Nov.	ă,	1879
Bonzano, Adolphus,	Vice-Pres. and Ch. Eng. The Phoenix		,-	1.07.)
Bonzano, Maximilian F.	Bridge Co., Phoenixville, Pa. Supt. Phila, and New York Div.	Aug,	7,	1872
	Philadelphia & Reading R. R., 900	7		4
	Green st., Philadelphia, Pa.	Jan.	6,	1886

Name.	Address.		ate o	
BOOTH, WILLIAM H.	Mech, Eng. London Central Subway			
	Ry Leadenhall House, London, E. C., England.	July	4,	1888
Bouscaren, Louis G. F.	Cons. Eng., 99 West Fourth st., Cincinnati, Ohio.	April	7,	1875
Bowie, Augustus J., Jr.	Cons. Eng. 217 Sansome st. (P. O. Box 2471), San Francisco, Cal.	Nov.	1.	1882
BOYD, CHARLES R.	Wythevill, Wythe Co., Va.	April	6,	1881
BOYNTON, GEORGE H,	Asst. Eng. Chicago, Rock Island & Pacific Ry., Davenport, Iowa.	Sept.	9.	1884
Brackenridge, William A	Toms River, Ocean Co., N. J.	June		1886
Brackett, Dexter,	Supt. Eastern Div. Boston Water		,	
,,	Works, 221 Federal st., Boston, Mass.	June	6	1888
Bradley, Timothy C,	Pres. Cookson Iron Works, corner	0 1120	Ο,	1000
	Eight ⁱ t and Mulberry sts., Kansas			
T) 517 TE	City, Mo.	Dec.		1882
Bradley, William H. Brainard, Henry A.	85 Water st., Boston, Mass.	Feb.	5	1879
DRAINARD, HENRY A.	Care The Santa Clara Valley), San Jose, Santa Clara Co., Cal.	Feb.	6,	1884
Breckenridge, Cabell	1045 Scott st., Covington, Ky.	June	1,	1881
Breen, Howard	Eng. Keystone Bridge Co., Pitts-			
	burgh, Pa.	Apr.		1888
Breithaupt, William H.	Baird Bldg., Kansas City, Mo. $\begin{cases} J. \\ M \end{cases}$	June July	4, 6,	1884 1887
Brendlinger, Peter F.	Supt. for Walston H. Brown, Receiver Brown, Howard & Co., Tar-	o ary	0,	1004
Barrion Later 1	rytown, N. Y.	Sept.	7,	1887
Briggs, Josiah A.	Asst, Eng. Dept. Public Parks, in chg. Webster ave. Sewer, etc., St. James			
	st., Fordham, New York City.	Sept.	1,	1886
Briggs, Roswell E.	Ch. Eng. Denver and Rio Grande Ry., Denver, Colo.	Sept.	15,	1869
Brinckerhoff, Alex. (4.	Supt. works, Johnson & Morris, 114	repr.	10,	1000
, ·	Leonard st., New York City.	Nov.	3,	1886
Brinckerhoff, H. Waller	a Office of <i>The Engineering and Building Record</i> , 277 Pearl st., New York	37.	_	1000
Brinsmade, Daniel S.	City. Eng. Ousatonic Water Co., Birming-	Nov.	1,	1883
, · ·	ham, Conn.	Feb.	1,	$1\bar{8}88$
Brittain, Alfred	Asst. City Surveyor, City Hall, Mon-	27		1001
Brodhead, Calvin E.	treal, Canada. Lehigh Coal and Iron Co., cor. Third	Nov.	2,	1881
	and Cedar sts., St. Paul, Minn.	Feb.	21,	1872
Brooks, Fr durick	31 Milk st., Boston, Mass. $\begin{pmatrix} J \\ M \end{pmatrix}$	June	7,	1876
	(Δ1.	Jan.	2.	1884

Name.	Address.		ate of	
Brown, Alba F.	Gen. Man. Keystone Bridge Co., Pittsburgh, Pa.	Sept.	7.	1887
Brown, Charles O.	Pres. The Riverside Bridge and (-		·	1875
	Iron Works, 18 Broadway, New M. York City.	Nov.	7,	1877
Brown, E. L.	Civil Eng. and Eng. East Side Electric St. Ry., Brockton, Mass.	Sept.	5 .	1888
Brown, Thomas E., Jr.	Ch. Eng. Otis Bros. & Co., 38 J.	Nov.	- 1	1880
	Park Row, New York City. (M.			1884
Browne, George H. Bruen, Frank	Supt. Water Works, Pittsburgh, Pa. Civil Eng. and Contractor, Box 253	Sept.	3,	1884
	New Haven, Conn.	June	1,	1886
BRUNER, DANIEL P.	Germantown, Pa	Sept.		1876
	(Д.	May		1879
Brush, Charles B.	(Director.) 13 Newark st. Ho- (J. boken, N. J.	Sept.		1871
Bryson, Andrew	12 Broadway, Room 44, New York		5,	1877
Buchholz, Carl W.	City Eng. Bridges and Buildings, New	April	1,	1885
Dochnolz, Carb W.	York, Lake Erie and Western R.R.,			
	21 Cortlandt st., New York City.	Sept.	1.	1886
Buck, Leffert L.	Civil Eng., 18 Broadway, New York	I.d	-,	2000
	City.	Feb.	3.	1875
Budde, Otto C. E.	Essen, Prussia.	July		1888
BUDGE, ENRIQUE	Valparaiso, Chili.	Feb.	1,	1882
Buel, Richard H.	206 Broadway, Room 47, New York City.	April	17,	1872
Bullock, William D.	Asst. Eng. in chg. Bridges, City (J.	64 .	~	
	Engineer's office, Providence	Sept.		1877
		July	4,	1888
Burbank, George B.	Div. Eng. New Aqueduct, Brewster, N. Y.	July	4,	1888
Burdên, James A.	Pres. The Burden Iron Co., Troy, N. Y.	July		1879
BURGWYN, COLLINSON P. E.	U. S. Asst. Eng., $905\frac{1}{2}$ E. Main st.,	ŭ	۳,	1010
Danning Crongr	Richmond, Va.	Nov.	1,	1882
BURNET, GEORGE	Street Commr., City Hall, St. Louis, Mo.	Mar.	1,	1882
Burns, Edward C.	Cor. East. Fourth and Spring sts., Jamestown, N. Y.	T1		
Burpee, Moses	Ch. Eng. New Brunswick Ry., Wood-	July	Э,	1882
	stock, New Brunswick, Canada.	Sept.	3,	1884
BURR, WILLIAM H.	Eng. Construction, The Phoenix $\begin{pmatrix} J_{A} \end{pmatrix}$	June	4,	1874
The state of the s	Bridge Co., Phoenixville, Pa. (M.	May	5,	1880
Burrowes, Francis S.	Asst. Eng., U. S. Engineer office,	Mar.	3,	1886
	Portland, Me.	June	6,	1888

Name.	${f Address}.$	Date of Membership.		
		pren	13618	шъ.
Bush, Harry D.	Supt. Lachine Works, Dominion Bridge Co., Montreal, Canada.	May	9	1000
BUTLER, MATTHEW J.	Fraserville, Quebec, Canada.	April		1888 1885
BUTTERFIELD, FRANCIS E.	Hotel Hidalgo, Monterey, Mexico.	Sept.		1886
Buxton, Clifford	Ch. Eng. Toledo & Ohio Central Ry.,	isejit.	1,	1000
Dexion, Chillond	Toledo, Ohio.	May	6.	1885
Byllesby, Henry M.	Vice-Pres. and Gen. Man. Westing-		٠,	2000
	house Electric Co., Pittsburgh, Pa.			
	Vice-Pres. Sawyer-Man Electric			
	Co., 510 West 23d st., New York			
	City.	June	1,	1887
CAIN, WILLIAM	Citadel, Charleston, S. C.	Nov.	7,	1888
CALKINS, FRANK A.	585 East 136th st., New York City.	April	5,	1882
CAMP, FRED. A.	1709 Thomas pl., Minneapolis, Minn.	Sept.	3,	1884
CAMPBELL, ALLAN	125 Lexington ave., New York City.	Feb.	19,	1868
CAMPBELL, CHARLES E. H.	Council Bluffs, Iowa.	Oct.	3,	1883
Canfield, Edward	Ch. Eng. New York, Ont. & Western			
	Ry., Middletown, N. Y.	Dec.	3,	1879
CARD, WILLIAM W.	Secretary, The Westinghouse Air	C1 .	_	44100
G	Brake Co., Pittsburgh, Pa.	Sept.	ю,	1883
Carpenter, Clarence A.	Prin. Asst. Eng. Bridges and Bldgs.			
	Chicago, Milwaukee & St. Paul Ry.,	May	9	1888
CARREL, FREDERICK J.	Milwaukee, Wis. Spokane Falls, Wash.	Mar.	5,	1884
CARTER, EDWARD C.	Prin. Asst. Eng. Chicago and North-	Mai.	υ,	1001
CARTER, EDWARD C.	Western Ry., Chicago, Ill.	April	4.	1888
CARTER, OBERLIN M.	First Lieut. Corps Engrs. U. S. A.,	1	-,	200
,	P. O. Box 133, Savannah, Ga.	Mar.	7.	1888
CARTWRIGHT, ROBERT	1 Hawthorne st., Rochester, N. Y.	July	10,	1872
CHANUTE OCTAVE	Cons. Eng., 5 Ritchie pl., Chicago,	•		
	III.	Feb.	19,	1868
CHAPMAN, WILLIS D.	Akron, Ohio.	May	7,	1884
Chase, Josian G.	Cambridgeport, Mass.	June	1,	1870
CHENEY, JOHN E.	Asst. City Eng., Boston, Mass.	May	7,	1884
CHILDS, JAMES E.	Asst. Gen. Man. Lake Shore and Michigan Southern R. R., Cleve-			
	land, Ohio.	Dec.	4,	1878
CHIPMAN, WILLIS	City Engineer, Brockville, Ontario,			
~ ~	Canada.	June		1888
CHITTENDEN, SAMUEL H.	East River, Conn.	April	- 1	1876
CHRISTIE, JAMES,	Pencoyd, Montgomery Co., Pa.	May	7,	1873
Church, Benjamin S.	Cons. Eng. New Croton Aqueduct,			
	Room 213, Stewart Building, New York City.	Dec.	.4	1867
CHURCH, CHARLES T.	Saratoga Springs, N. Y.	May	,	1889
menen, Charles 1.	paratoga springs, n. r.	DIG	,	100%

Name.	Address.		ate o	
Church, George Earl	9 New Broad st., E. C., London, Eng-			
	land.	Nov.	2,	1887
CHURCHILL, CHARLES S.	Eng. Main. Way, Norfolk and Western	Marr	1	1000
Cisneros, Francis J.	R. R., Roanoke, Va. Barranquilla, U. S. Colombia.	May May	15,	$1889 \\ 1872$
CLAPP, L. RUSSELL	Asst. Eng. Dept. City Works, Room	711117	10,	1012
Chiri, in Actional	29, Brooklyn, N. Y.	Feb	1	1888
CLARK, JACOB M.	'119 Liberty st., New York City.			
	(Residence, 145 Madison ave.,			
	Elizabeth, N. J.)	Jan.	29,	1868
Clarke, David D.	Asst. Eng. Northern Pacific R. R.,			
	Tacoma, Wash.	July	5,	1882
CLARKE, ELIOT C.	(Director.) 15 Brimmer st., Boston,	(1)		1050
Crappe H Wanguanny	Mass.	Sept.	4,	1878
CLARKE, H. WADSWORTH	Civil Eng., 11 Granger Block, Syracuse, N. Y,.	Mar.	15	1871
CLARKE, THOMAS C.	1 Broadway, New York City.	Mar.		1886
CLEEMAN, THOMAS M.	2135 Spruce st., Philadelphia, Pa.	Oct.		1879
CLEMENT, FRANK H.	124 West Forty-eighth st., New York		,	
	City.	Nov.	1,	1882
Codwise, Edward B.	Ch. Eng. Ulster & Delaware R. R.,			
	and Delaware & Otsego R. R.,			
0 117 117	Kingston, N. Y.	Sept.	5,	1888
COE, WILLIAM W.	Ch. Eng. Norfolk & Western R. R.,	A 1	٠,	1000
Coffin, Amory	Roanoke, Va. Ch. Eng. Phænix Iron Co., Phænix-	April	э,	1889
Corra, Ilaioni	ville, Pa.	Mar.	3	1875
COFFIN, WILLIAM B.	Supt. New York, Lake Erie & West-		-,	
	ern R. R., Susquehanna, Pa.	Nov.	6,	1872
COGSWELL, WILLIAM B.	Gen. Man. Solvay Process Co.,			
,	Gen. Man. Solvay Process Co., 25 White Building, Syracuse, N. V.	Feb.	,	1870
	N. Y. (M.	Oct.	16,	1872
COHEN, MENDES	825 N. Charles st., Baltimore, Md.	Dec.	4,	1867
Collingwood, Francis	Elizabeth, N. J.	Mar.		1869
Colton, Oben B.	2009 Wallace st., Philadelphia, Pa.	April	2,	1884
Comstock, Cyrus B.	Col. Corps of Engs., Bvt. BrigGen. U. S. A., Army Bldg, New York			
_	City.	Sept.		1880
Connor, Addison	Asst. Eng. Cairo Rridge, Cairo, Ill.	Jan,	,	1887
CONSTABLE, CASIMIR	Ch. Fra. Minneapolis, Landele fr	June	17,	1868
Cooley, George W.	Ch. Eng. Minneapolis, Lyndale & Minnetonka Ry., 42 South Third			
	st., Minneapolis, Minn.	Sept.	2.	1885
COOLMAN, DEWITT C.	Ravenna, Ohio.	Mar.		1874
COOPER, SAMUEL L.	Asst. Eng. in chg. Croton Aqueduct,			
	Box. 767, Yonkers, N. Y.	Feb.	6,	1889

Name.	Address.	Date of Membership.		
COOPER, THEODORE	Civil and Mech. Eng., 35 Broadway,			<u>-</u>
	New York City.	Mar.	4,	1874
COPPÉE, HENRY ST. L.	Civil Eng., $101\frac{1}{2}$ Washington st.,			
	Vicksburgh, Miss.,	Oct.		1887
CORNELL, GEORGE B.	45 Broadway, New York City. M.	Aug. Oct.	6, 6,	$\frac{1879}{1886}$
CORNELL, OLIVER H. P.	Ch. Eng. Cincinnati, Alabama & At-		ĺ	
	lantic R. R., Tullahoma, Tenn.	April	4,	1883
CORTHELL, ELMER L.	(Vice-President.) 205 La Salle st.,			
	Chicago, Ill.	Sept.	2,	1874
COTTON, JOSEPH P.	Civil and Sanitary Eng., Newport, R. I.	June	-	1070
COWLES, WALTER L.	King Iron Bridge and Mfg. Co.,	June	1,	1876
	Cleveland, Ohio.	Mar.	6,	1889
Cox, A. Beekman	Cherry Valley, N. Y.	May	7,	1873
Coxe, Eckley B.	Drifton, Luzerne Co., Pa.	Feb.	7,	1877
CRAIG, CHAMBERS M.	Prin, Asst. Eng. Alabama Midland			
	R. R., Bainbridge, Ga.	Nov.	3,	1886
CRAIGHILL, WILLIAM P.	Col. Corps of Engs., U. S. A., 1734	0.1	_	4.00=
On the same	St. Paul st., Baltimore, Md.	Oct.	1,	1885
Craven, Alfred	Div. Eng. New Croton, Aqueduct, Dobb's Ferry, N. Y.	Dec.	5.	1888
CRAVEN, HENRY S.	Civil Eng. U. S. N., Navy Yard, New	Dec.	ο,	1000
·	York.	Dec.	3,	1884
CRAWFORD, WILLIAM	Sault Ste. Marie, Ontario, Canada,	Nov.	7,	1888
Croes, J. James R.	Ch. Eng. Suburban Rapid Transit	T	,	2110=
	Co., 40 Wall st., New York City.	Dec. June	4,	1867 1880
Crosby, Benjamin L.	Kulo Richardson Co Nob -	Oct.	6,	1886
CROSBY, HORACE	New Rochelle, N. Y.	Feb.	17,	1869
CROSBY, WILSON	125 Hammond st., Bangor, Maine.	Sept.	15,	1869
Crowell, J. Foster	P. O. Box 1014, Geneva, N. Y.	Dec.	1,	1880
CULYER, JOHN Y.	Civil Eng. and Landscape Architect, Potter Bldg., Park Row and Beek-			
	man st., New York City.	Feb	17,	1869
CUNNINGHAM, DAVID W.	Grandin, Cass Co., Dakota.	May		1873
CUNNINGHAM, JAMES H.	26 Victoria st., London, S. W., Eng-			
	land.	Aug.	6,	1879
CURRIE, DANIEL MCN.	U. S. Asst. Eng., Room 428, Custom	31	~	1000
CURTIS, FAYETTE S.	House, St. Louis, Mo. Ch. Eng. New York, New Haven &	May	5,	1880
	Hartford R. R., New Haven, Conn.	April	3,	1859
CURTIS. WENDELL R.	Civil Eng Savenneh Ga (J.	Mar.		1875
	(M.		- 1	1884
CURTIS. WALTER W.	557 Drake Block, St. Paul, Minn.	Sept.	5,	1888

Name.	Address.	Da Mem	te of	
CURTIS, WILLIAM G.	Asst. to Gen. Man. and Supt. Track			
	Southern Pacific Company, Pacific			
	System (Lock Box 2328), San Fran-			
O O T	cisco, Cal.	May	3,	1882
Cushing, Oliver E.	Eng. Lowell Gas Light Co., Lowell,	Tulv	10	1050
	Mass.	July	10,	1872
Dagron, James G.	415 Broadway, Room 30, New York			
	City.	Oct.	6,	1886
Darlington, Frank G.	Supt. and Secy. Cincinnati and J.	Feb.	6,	1884
	Muskingum Valley R. R., M. Zanesville, Ohio.	April		1887
DARRACH, CHARLES G.	(Civil and Hydr. Eng., Wilson Bros.			
	& Co.), Drexel Bldg., Philadelphia,			
	Pa.	Jan.	5,	1876
Davis, Charles	County Eng., Pittsburgh, Pa. (72			
Down Courses E. I. D.	Western ave., Allegheny City, Pa.)	Sept.	15,	1869
Davis, Charles E. L. B.	Maj. Corps of Engs., U. S. A., P. O. Drawer 7, Milwaukee, Wis.	July	1.)	1877
DAVIS, CHESTER B.	Hydr. and San. Eng., Room 549, The	3 tay	1-,	1011
	Rookery Bldg., Chicago, Ill.	Feb.	1,	1882
DAVIS, FRANK P.	Res. Eng. Nicaragua Canal Cons. Co.,			
	Greytown, Nicaragua.	Feb.	1.	1888
Davis, Joseph P.	Cons. Eng. (Care Met. Tel. & Tel.			
	Co.), 18 Cortlandt st., New York City.	Jan,	29,	1868
DAWLEY, EDWIN P.	Eng. New York, Providence & Boston	9411.	±€′,	1000
	R. R., Providence, R. I.	April	1,	1885
Deans, John Sterling	Asst. Eng. Estimating and Designing			
	Dept., The Phænix Bridge Co.,			
Danson Money M	Phoenixville, Pa.	Мау	4,	1887
Defrees, Morris M.	Eng. Bridges and Buildings. Ohio. Indiana & Western R. R., Indian-			
	apolis, Ind.	Marcl	1 3.	1880
DeFuniak, Frederick	Cons. Eng., 204 East Chestnut st.,			
	Louisville, Ky.	May	7,	1873
Delafield, Clarence	2 Wall st., New York City.	Feb.		1888
DEMPSTER, ALEXANDER	43 Sixth ave., Pittsburgh, Pa.	Nov.	5,	1879
DENNIS, WILLIAM F.	Eng. Panama R. R., Colon, U. S. Colombia; address: Panama R. R.,			
	Mills Bldg., New York City.	Feb.	1.	1888:
DERRICK, HENRY C.	Halifax C. H., Halifax Co., Va.	Oct.	5,	
Devin, George	(Care Theodore Cooper), 35 Broad-			
D 0 T D	way, New York City.	Sept.	7.	1887
Devo, S. L. F.	Asst. Eng. New York, New Haven &			
	Hartford R. R., 10 East 119th st., New York City.	June	6	1888
	THE CITY	o till	,	100.9

Name.	Address.	D: Mem	ite of	
DICKINSON, POMEROY P.	Ch. Eng. Poughkeepsie Bridge Co.			
and a contract of the contract	and its connections and General			
	Cons. Eng., 7 Nassau st., New York			
	City.	Jan.	17,	1872
DIDIER, PAUL	Ch. Eng. Pittsburgh and Western			
	R. R., Allegheny, Pa.	March	6,	1889
D'INVILLIERS, CAMILE S.	Eng. Cons. Pennsylvania R. R.,			
	Philipsburg, Pa.	Jan.	4,	1888
Doane, Edwin A.	Hapeville, Fulton Co., Ga.	June	7,	1876
Doane, Thomas	Charlestown, Mass.	June	7,	1882
Doane, Walter A.	Eng. Bridges Oregon Pacific R. R.,			
	Corvalis, Ore.	Sept.	,	1881
Dodge, Joseph T.	20 Third ave., west, Duluth, Minn.	April	6,	1887
Donovan, John J.	Ch. Eng., Fairhaven & Southern			
		April	7,	1886
	Skagit Coal & Transpt. Co., M.	April	4,	1888
	Bellingham, Wash.			
Doran, Frank C.	Ind. Union Ry., Indianapolis, Ind.	Sept.	ð,	1853
Dorsey, Edward B.	International Club, Northumberland			
	ave., Trafalgar sq., London, Eng-			
	land. (Care Union League Club	T		1070
Daniel Harry T	New York City.)	June	4,	1879
Douglas, Henry T.	Ch. Eng. Baltimore and Ohio R. R.,	July	e	1097
Downe, George	Baltimore, Md. Supt. Motive Power New South	ami	1),	1887
DOWNE, GEORGE	Wales Govt. Steam Tramways,			
	Randwick, Sydney, New South			
	Wales, Australia.	Sept.	õ,	1883
DRAKE, WILLIAM A.	Asst. Eng. The Denver & Santa Fé	-		
Dinney William II.	Ry., and Supt. West. Div. A. T. &			
	S. F. Ry., Pueblo, Col.	Dec.	5.	1883
DUBARRY, JOSEPH N.	Second Vice-Pres. Penn. R. R., 233		-,	
Denning owner 1	South Fourth st., Philadelphia, Pa.	Jan.	6.	1875
Dun, James	Ch. Eng. St. Louis and San Francisco	0 (022)	٠,	20.0
,	R. R., Seventh and Cerre sts., St.			
	Louis, Mo.	June	7,	1876
DUNCKLEE, JOHN B.	Asst. Eng., Potomac River Improve-		*	
	ment, 2136 Pennsylvania ave.,			
	Washington, D. C.	April	2,	1873
DUNLAP, DE CLERMONT	Asst. Eng. Dept. Public Works, 296-			
	Warren ave., Chicago, Ill.	Jan.	4,	1888
DURHAM, C. WHEELER	Pres. and Gen. Man. The Durham			
	House Drainage Co. of New York,			
	158 and 160 West Twenty-seventh			
	st., New York City.	April	4,	1877

Name.	Address.	Mem	ate d	
EARLEY, JOHN E.	Eng. for Bowes, Scott, Read, Camp-			
	bell & Co., Mexico; address: Ira- puato, Guanajuato, Mexico.	April	5	1876
EATON, FREDERICK	City Eng., Los Angeles, Cal.	May		1886
EAYRS, NORMAN W.	Asst. Supt. Structures St. Louis		٠,	
	Bridge & Tunnel R. R., St. Louis,			
	Mo.	June	3,	1885
ECKART, WILLIAM R.	P. O. Box 1844, San Francisco, Cal.	Jan.	5,	1881
ECKERT, EDWARD W.	Room 286, Washington Bldg., 1			
	Broadway, New York City.	Feb,	3,	1886
Edwards, Nathaniel M.	Appleton; Wis.	June	14,	1874
EGGLESTON, T. C.	Eng. Maintenance of Way C. & O.			
	Ry., Richmond, Va.	Dec.	7,	1887
Egleston, Thomas	Prof. School of Mines, Columbia Col-			
	lege, 35 West Washington square,		_	
	New York City.	March	,	
ELLIOT, CHARLES D.	Somerville, Mass.	Aug.		1872
ELLIS, S. CLARENCE	City Hall, Boston, Mass.	Aug.	7,	1872
Elmer, Howard N.	Man. Western Office, New Jersey	1	-	1000
ELY, THEODORE N.	Steel & Iron Co., St. Paul, Minn. Gen. Supt. Motive Power Penn.	April	7,	1886
ELI, THEODORE IV.	R. R., Altoona, Pa.	March	9	1881
EMERSON, GEORGE D.	Hancock, Mich.	Sept.	,	
EMERY, CHARLES E.	Cons. Eng., 22 Cortlandt st., New	r logse.	,	1012
and the same of th	York City.	May	6.	1874
ENDICOTT, MORDECAI T.	Civil Eng. U. S. N., U. S. Navy Yard,		,	
,	Norfolk, Va.	April	7,	1877
ENGLE, ROBERT L.	Lincoln ave., Walnut Hills, Cincin-			
	nati, Ohio.	Sept.	7,	1881
Ernst, Oswald H.	Maj. Corps Engrs. U. S. A., Galves-			
	ton, Texas.	July	-	1888
Evans, George E.	City Eng., Lowell Mass.	May	2,	1888
Evans, Louis P.	(Cofrode & Evans, Engs. and Con-	~ .		
	tractors.) Pottstown, Pa.	Sept.	3,	1884
Fanning, John T.	Agent and Ch. Eng. St. Anthony			
	Falls Water Power Co., Union			
	Depot Bldg., Minneapolis, Minn.	Aug.	7,	1872
FARNHAM, ROSCOE E.	228 La Salle st., Room 53, Chicago, Ill.	Sept.	7,	1887
FELTON, HERBERT C.	Supt. Kaighn's Point and Philadel-	_		
	phia Ferry Co., Camden, N. J.	June	1,	1887
FELTON, SAMUEL M., Jr.	First Vice-Prest, New York, Lake			
	Erie & Western R. R., 21 Cortlandt	T		1000
Ennarrow Jorny W	st., New York City.	Jan.	4,	1882
Ferguson, John W.	Asst. Eng. Bridges and Bldgs., New York Lake Erie & West- J.	Feb.	2	1881
	21011 20111, 2511110 12510 12 11 001]	Feb.	- 1	1887
	York City.		-,	
	Lorin Civij.			

Name.	Address.	Da Memi	ite oi bersl	
FERRY, CHARLES A.	Asst. City Eng., 18 City Hall, + J.	May	4,	1881
		Jan.	2,	1889
FIELD, BURR K.	Vice-Pres. and Treas. Berlin Iron			
,	Bridge Co., East Berlin, Conn.	Oct.	1,	1884
FIELD, GEORGE S.	Union Bridge Co., Buffalo, N. Y.	April	7.	1880
FIELDS, SAMUEL J.	564 Ellicott st., Buffalo N. Y.	March		
FILLEY, HIEL H.	Ch. Eng. Mex. Nat. Cons. Co.,			
,	Security Bldg., Kansas City, Mo.	Jan.	3,	1883
FINE, ALBERT	(Past President.) Com. of Trunk Lines,			
1100, 11002014	346 Broadway, New York City.	July	20.	1870
Fink, Rudolph	Pres. and Gen. Man. Little Rock &		,	
,,	Memphis R. R., Little Rock, Ark.	Sept.	21,	1870
Finney, Frederick N.	Milwaukee, Wis.	Sept.		1879
FIRMSTONE, FRANK	Easton, Pa.	Aug.	7,	1878
Fisher Claek	Fisher Rail Joint Works, Trenton,			
	N. J.	Oct.	19,	1870
FISHER, EDWIN A.	Div. Eng. Main. Way, Western New			
	York and Penn. R. R., and Ch. Eng.			
	Rochester Electric Ry., Rochester,			
	N. Y.	July	4,	1888
FISHER, FRANCIS D.	Res. Eng. Suburban Rapid Transit			
	Co., (Residence, 19 West 125th st.,)			
	New York City.	May	2,	1888
Fitch, Asa B.	1304 South Sixth st., Terre Haute, Ind.	May	5,	1884
FitzGerald, Desmond	Res. Eng. Additional Supply and			
	Supt. West. Div. Boston Water			
	Works, Brookline, Mass.	Sept.	3,	1884
FITZGERALD, J. LELAND	Sanitary Eng., Schenectady, N. Y.	Jan.	2,	1889
Flad, Edward	Civil and Mech. Eng., Laclede J.	Jan.	7,	1885
	,	Feb.	1,	1888
FLAD, HENRY	(Past President.) Pres. Board Public			
	Improvements, City Hall, St. Louis,			
	Mo.	Feb.	15,	1871
Flagg, J. Foster,	(Care Am. Soc. C. E.), 127 East	0 1	_	-0-1
	Twenty-third st., New York City.	Oct.		1874
FLEMING, SANDFORD	Ottawa, Canada.	Sept.	18,	1872
Fogg, Charles E.	Div. Eng. Poughkeepsie and Con-			
	necticut R. R., 51 Montgomery st., Poughkeepsie, N. Y.	Oct.	1.0	1950
T + T	Eng. and Man. Idaho Mining and Ir-	Oct.	10,	1872
FOOTE, ARTHUR D.	rigation Co., Boisé City, Idaho.	May	7	1884
Fanon Cynys C	Cons. Civil Eng., Forest City House,	71116	٠,	1004
Force, Cyrus G.	Cleveland, Ohio.	Feb.	6	1878
FORNEY, MATTHIAS N.	Editor Railroad and Engineering	200.	Ο,	20111
TORNEL, BIRTIMAS IV.	Journal, 145 Broadway, New York			
	City.	Sept.	6	1871
	•	1	,	20.2

Name.	Address.	Da Mem	te o	
FORSYTH, ROBERT	Man. Union Steel Co., 3179 Ashland			
I ORSITH, IOBERT	ave., Chicago, Ill.	May	12.	1875
FOSTER, WILBUR F.	Eng. and Contractor, 3 Berry Block.		,	
	Nashville, Tenn.	May	7,	1873
FOUQUET, JOHN D.	Architect New York Central and			
	Hudson River R. R., Room 21,			
	Grand Central Station, New York			
	City.	June	3,	1885
Fox, S. Waters	Div. Eng. in chg. St. Joseph Div.	July	7	1880
	Impvt. Missouri River, St.			1886
T O D	Joseph. Mo.		,	
Francis, George B.	Prin. Asst. Eng. New York, J.	Sept.	5,	1883
	Providence & Boston R. R., M. Providence, R. I.	Nov.	7,	1888
FRANCIS, HENRY N.	Asst. Eng. City Engrs. Office, J.	March	1.	1876
THAT IS, THE ST.		Nov.		1888
Francis, James B.	(Past President.) Cons. Eng. of Pro-		,	
	prietors of Locks and Canals on			
	Merrimack River, Lowell, Mass.	Nov.	5,	1852
FRANKLIN, WILLIAM B.	Hartford, Conn.	April	1,	1874
Frazier, Harry	Supt. Main. Way Chesapeake & Ohio			
	Ry., Cincinnati, Ohio.	May	1,	1889
Frazier, James L.	Supt. Newport News & Mississippi	£1 4	,	1000
	Valley Co., Louisville, Ky.	Sept.	1,	1880
Freeman, John R.	Hydr. Eng. and Inspector Assoc.	June	7,	1882
	ractory Mutual Ins. Co., 51	April	3,	1889
FRITH, ARTHUR J.	Milk st., Boston, Mass. Newark Machine Tool Works, New-			
I KITH, ARTHUR 9.	ark, N. J.	Jan,	3	1883
FRIZELL, JOSEPH P.	Asst. Eng. U. S. A., office Impvt.	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	٠,	1000
 	Cumberland and Tennessee Rivers,			
	Nashville, Tenn.	Jan.	3,	1883
FTELEY, ALPHONSE	(Vice-President.) Ch. Eng. Aque-			
	duct Commission, 213 Stewart			
	Bldg., New York City.	Jan.	5,	1876
Fuertes, Estevan A.	Dean of the Faculty of Engineering,	77.1	1.5	1000
Essan Essanus E	Cornell University, Ithaca, N. Y.	Feb.	17.	1869
FULLER, EUGENE F.	Hydr. Eng., 11 Wall st., New York City.	May	5	1886
FULLER, FRANKLIN I.	(Care Oregon Iron & Steel Co.) Os-	214.20,1	Ο,	1000
	wego, Oregon.	Jan.	6,	1886
FULLER, FRANK L.	Civil Eng., 12 Pearl st., Room (J.	April	4,	1883
	36, Boston, Mass. M.	April	4,	1888
FULLER, SIDNEY T.	P. O. Box 37, Kennebunk, Me.	May	3,	1871
FULTON, JOHN A.	Res. Eng. Toledo, St. Louis and Kan-			
	sas City R. R., Toledo, Ohio.	May	4,	1887

Name.	Address.	Date of Membership.		
GARDINER, EDMUND L. B.	Eng. Dundee Water Power and Land			
·	Co., Passaic, N. J.	June	7,	1882
GARDNER, G. CLINTON	Greenfield Mass.	Nov.		1875
GATCHELL, GEORGE S.	Gen. Supt. Western New York and			
	Pennsylvania R. R., Buffalo, N. Y.	May	7,	1884
Gates, Christopher L.	Eng. Smith Bridge Co., Toledo J.	Dec.	4,	1878
	Ohio, (M.	Sept.	ō,	1883
Gates, Horace D.	Dep. City Eng., 2532 Sutter st., San			
G G	Francisco, Cal.	March		
GAYLER, CARL	Bridge, Eng., City Hall, St. Lonis, Mo.	Sept.	3,	1884
GELETTE, WILLIAM D.	(Care Ch. Eng. Southern Pacific Co.)			
	cor. Fourth and Townsend sts.,			150*
GERBER, EMIL	San Francisco, Cal.	April	1,	1885
CERDER, LMIL	With George S. Morison, 205 La- Salle st., Chicago, Ill.	Feb.	1	1000
GIBBS, CHARLES W.	Ch. Eng. Silverton R. R., Silverton,	ren.	1,	1888
CHARLES II.	Colo.	Jan.	2.	1889
GIELOW, HENRY J.	Eng. and Naval Architect, 239 Broad-	onu.	Ξ,	1/3(1.2)
	way, New York City.	Dec.	6	1882
GILBERT, CHARLES P.	Sec. and Man. Edison Illuminating		,	1002
	Co., Detroit, Mich.	Feb.	6,	1878
GILLESPIE, JOSHUA L.	P. O. Box 2396, (Residence, cor. St. Peter and Seventh sts.) St. M. Paul Minn	77. 1		
	St. Peter and Seventh sts.) St.	Feb.		1875
	Paul, Minn.	April	2,	1884
GILLHAM, ROBERT	19 Gibraltar Bldg., Kansas City, Mo.	June	2,	1886
GLADDING, HENRY H.	30 Stanley st., New Haven, Conn. J.	July	1,	1885
,	(M.	Jan.	4,	1888
GLOVER, OLIVER L.	La Union, Salvador, Central America.	April	3,	1878
Goad, Charles E.	1689 Notre Dame st., Montreal, Can-			
	ada; and 53 New Broad st., Lon-	a	_	
Consum Danie	don, E. C., England.	Sept.		1881
GODWIN, BRYANT	54 Frankfort st., New York City.	April		1877
GOLAY, PHILIP GOLDMARK, HENRY	Vevay, Ind.	Sept.	Э,	1877
GOLDMARK, HENRI	Eng. Bridges Kansas City, Ft. Scott & Memphis R. R., Kansas W.	May	7,	1884
	City, Mo.	June	6,	1888
GOODRICH, WILBUR F.	5 Pemberton sq., Boston, Mass.	May	4	1887
GOODWIN, H STANLEY	Gen. Eastern Supt. Lehigh Valley	2.211	-,	1001
	R. R., South Bethlehem, Pa.	July :	20.	1870
Goodwin, John M.	Sharpsville, Mercer Co., Pa.	Sept.		1872
GOTTLIEB, ABRAHAM	Major Block, Room 75, Chicago, Ill.	Sept.		1872
Gordon, Robert	(Care H. S. King & Co.) 45 Pall Mall,			
	London, England.	Feb.	4,	1882
Gould, E. Sherman	Cons. Eng. Scranton Gas and Water			
0 0 0	Co., Scranton, Pa.	Nov.	4,	1885
Gowen, Charles S.	Div. Eng. New Croton Aqueduct,			
	Sing Sing, N. Y.	Mar.	7.	1888

Name.	Address.		Date onbers	
GRAFF, FREDERIC	(Past President.) Hydr. Eng., 1337			
	Arch st., Philadelphia, Pa.	May	7,	1873
Graham, Charles H.	Asst. Eng. Department Public Parks,			
	445 East One Hundred and Seven-			
	teenth st., New York City.	Sept.	ī,	1887
Grant, William H.	Asst. Architect, New Naval Obser-			
	vatory, Georgetown Heights, D. C.			
	(P. O. address, 3107 N. st., West, Washington, D. C.)	Inla	.)	10=0
Gray, George E.	1115 Bush st., San Francisco, Cal.	July July		1873 1873
GRAY, SAMUEL M.	City Eng., Providence, R. I.	May		1872
GREENE, BENJAMIN D.	2 East Fifteenth st., New York City.	Nov.		1885
Greene, Benjamin H.	U. S. Surveyor-Gen. of Montana,	21011	1,	1000
	Helena, Montana.	May	1.	1878
Greene, Charles E.	Prof. of Civil Engineering University	,		
	of Michigan, Ann Arbor, Mich.	Jan.	4.	1882
Greene, David M.	Director Rensselaer Polytechnic In-			
	stitute, 41 First st., Troy, N. Y.	May	20,	1868
Greene, Edward A.	Ch. Eng. Zanesville & Ohio River			
	Ry., Zanesville, Ohio.	July	4,	1888
Greene, Francis V.	Vice-Pres. Barber Asphalt Paving Co.,			
0 0 0 1	1 Broadway, New York City.	June	3,	1885
Greene, George S., Jr.	(Treasurer.) Engin-Ch., Depart-			
	ment of Docks, Pier A, North River New York City.	Dec.		1007
Greene, Joseph N.	Ch. Eng., Maine Shore Line R. R.	Dec.	4,	1867
Chiebae, 900Erit IV.	Bangor, Me.	Oct.	<i>5</i> .	1887
GREENOUGH, MALCOLM S.	Eng. Boston Gas Co., 24 West st.,	ere t.	9,	1001
	Boston, Mass.	Dec.	4.	1878
GRIMSHAW, J. WALTER	Australian Club, Bent st., Sydney,			
	New South Wales, Australia.	Nov.	7,	1888
Griswold, Frank L.	451 ⁿ / _n Calle Reconquista, Buenos			
	Ayres, Argentine Republic.	May	•)	1883
GUNNELL, WILLIAM C,	600 Twentieth st., Washington, D. C.	Feb.		1877
GUTHRIE, EDWARD B.	Deputy City Eng., City Hall, J A.	Sept.		1884
		Oct.		1887
Gzowski, Casimir S.	Toronto, Canada.	Dec.	2,	1868
HAIGHT, STEPHEN S.	City Surveyor and Civil Eng., West			
	Farms, New York City.	June	1.	1881
Haines, Henry S.	Gen. Man. Plant System (Savannah.		- 1	
	Florida and Western Ry., Charles-			
	ton & Savannah Ry., Brunswick &			
	Western R. R. and Plant S.S. Line.)			
	Savannah, Ga.	Nov,	2,	1887

		Date of
Name.	Address.	Membership.
HALL, WM. HAMMOND	Cons. State Eng. of California, Cons. Eng. U. S. Irrigation Survey, Flood	Jan. 2, 1884
Hambleton, Francis H.	Bldg., San Francisco, Cal. Cons. Eng., 8 South st., Baltimore,	,
Hamilton, William G.	Md. 105 East Twenty-first st., New York	Mar. 5, 1873
HANDY, EDWARD A.	City. Eng. Lake Shore Div., Lake Shore & Michigan Southern Ry., Cleveland, Ohio.	Oct. 7, 1868
HANNAFORD, EDMUND P.	Ch. Eng. Grand Trunk R. R., Montreal, Canada,	Jan. 2, 1889
HARDING, GEO, EDWARD	Civil Eng. and Architect, 40 Exchange	Sept. 18, 1872
HARDING, HENRY	pl., New York City. Hartland Four Corners, Vt.	Mar. 3, 1875
HARDY, GEORGE R.	1423 Chapel st., New Haven, Conn.	May 7, 1873 Nov. 7, 1888
HARISON, R. MORLEY	99 Douglas st., Glasgow, Scotland.	May 6, 1885
HARLOW, JAMES H.	Eng. and Contractor, 411 Wood st.,	1411, 13, 1009
TIMES II.	Pittsburgh, Pa.	Mar. 4, 1874
HARLOWE, CHARLES	1417 Sixth st., S. E., Minneapolis,	1, 2011
	Minn,	Sept. 7, 1887
HARRIS, ROBERT L.	187 Washington Building, 1 Broad-	1, 1001
,	way, New York City.	May 3, 1876
HARRIS, WILLIAM P.	Gen. Supt. St. Joseph, St. Louis &	• ′
Harrison, Edlow W.	Santa Fé Ry., St. Joseph, Mo. Rooms 74 and 75, Fuller Bldg., Jersey	June 1, 1881
22	City, N. J.	June 3, 1885
HARROD, BENJAMIN M.	City Eng., City Hall, Room 19, New	·
H. come Pourse us D	Orleans, La.	April 7, 1877
Hasell, Bentley D.	Manufrs, Agent and Railway Com. Merchant, office 66 Pine st.,	
	(Residence, 1648 Tenth ave.), New	
	York City.	July 3, 1878
HASKINS, WILLIAM J.	Asst. Eng. Department Public	
	Works, 31 Chambers st. (Resi- J.	Mar. 7, 1883
	dence, 41 West 105th st.), New M. York City.	Dec. 1, 1886
Haswell, Charles H.	Civil and Marine Eng., Supg. Eng. Department Public Charities and	
	Correction, 42 Broadway, New York	Jan. 29, 1868
Haupt, Lewis M.	City. Univ. Pennsylvania, Philadelphia, Pa.	June 6, 1888
HAVEN, WILLIAM A.	Ch. Eng. Northern Pacific & Montana	5 and 0, 1005
Jan Ing William II.	R. R. Helena, Montana.	March 5, 1873
HAVILAND, ARTHUR	New York Central and Hudson (, 20,0
	River R. R. Grand Central	Jan. 4, 1882
	Station, New York City.	Jan. 4, 1888

Name.	Address.	Date of Membership		
		ALC III	0013	itig/.
Hawks, James D.	Ch. Eng. Michigan Central R R., Detroit, Mich.	Dec.	3,	1884
H. vrs. Frances	Union Bridge Co., Buffalo, N. Y. J.	March	6,	1878
HAYES, EDMUND	(1)1,	March	5,	1884
Hayes, R. Somers	32 Nassau st., (Residence 39 West 38th st.) New York City.	Sept.	6.	1882
Hazlehurst, George B.	Eng. Bridges and Tests Baltimore & Ohio R. R., Camden Station, Balti-			
	more, Md.	Feb.		1888
HEALD, SIMPSON C.	31 Milk st., Boston, Mass.	Xov.	4,	1885
HEGEMAN, ALLEN B.	Div. Eng. Interoceanic Ry., Tepeya- hualco, Puebla, Mexico.	Feb.	1,	1888
HEGEMAN, WILLIAM W.	(Care Heman Clark & Co.) Birmingham	,		
	Conn.	Feb.	6,	1884
Hemberle, Edward	14 Douglas st., Carlsruhe, Baden,			
	Germany.	Jan.	7.	1874
Henning, Charles S.	Pres. Cherokee Coal Mining Co. Cher-		_	
-	okee, Kan.	Jan.	7.	1885
HENNY, DAVID C.	(With Howland & Ellis), Equitable		~	
T T T	Bldg., Boston, Mass.	Sept.	,	1887
HENRY, D. FARRAND	Detroit, Mich.	July	4,	1875
Henthorn, John T.	(Remington & Henthorn, Cons. and Mech. Engs.) 146 Westminster st.,			
	Providence, R. I.	Dec.	3,	1884
HERBERT, ARTHUR P.	Locating Eng. Zacatecas Div. Mexican National Cons. Co., P. O. address Calle de Ortega No. 28.			
	Mexico, Mexico.	Sept.	5	1888
HERING, RUDOLPH	31 Chambers st., Room 19, New York	octv.	ο,	1000
HERING, RCDOLFR	City.	Jan.	5,	1876
HERMANN, EDWARD A	Asst. Eng. Cincinnati, Indianapolis,			
	St. Louis & Chicago Ry., 80 East			
	New York st., Indianapolis, Ind.	April	6,	1887
Hermany, Charles	Ch. Eng. and Supt. Water Works,			
	549 Third st., Louisville, Ky.	Jan.	6,	1869
Herschel, Clemens	Hydr. Eng. Holyoke Water Power		24	1040
	Co., Holyoke, Mass.	April	21,	1869
HEUER, WILLIAM H.	Major Corps Engs. U. S. A., Room 89, Flood Bldg., San Francisco, Cal.	March	3	1880
HEWITT, CHARLES E.	Eng. N. J. Steel and Iron Co	Marie	ο,	1000
TIEWITI, CHARDES 13.	Trenton, N. J.	Oet.	5,	1887
HIDER, ARTHUR	U. S. Asst Eng., Res. Eng. in charge		ĺ	
	of improvements Lake Providence			
	Reach, Miss, Wilson's Point, La.	Sept.	7,	1881
Hilbert, Heliodore J.	City Treasurer, 335 Hanover st., Mil-			
	waukee, Wis.	April	1,	1885
Hilgard, Julius E.	1349 L st., Washington, D. C.	July	10,	1872

Name.	Address.	Da Mem	te d	
HILL, ALBERT B.	City Eng., New Haven, Conn. \ \ \frac{J.}{M}	Feb, March		1876
HILL, JOHN W.	Cons. Eng., Fifth and Race sts., J.			1875
HILL, WARREN E.	Vice-Pres. The Continental Iron	•	ĺ	
HILLMAN, CHARLES F.	Works, Greenpoint, N. Y. Civil Eng., Box 185, Santiago, Chili.	May July		1873 1876
HILTON, GEORGE P.	Eng. Hilton Bridge Cons. Co., Albany, N. Y.	May		1889
Hinckley, Howard V.	Office Eng. Atchison, Topeka & Santa Fé R. R., Topeka, Kansas.	Dec.		1883
Hinckley, John F.	Ch. Eng. St. Louis, Arkansas & Texas Ry, 2017 Rutgers st., St. Louis, Mo.	May		1885
Hoag, Sidney W., Jr	1718 Madison ave., New York City.	Sept.		1885
Hodgdon, Frank W.	Asst. Eng. Mass Harbor and Land Commission, 65 Bowdoin st., Bos-			
II	ton, Mass.	Dec.	_ ′	1884
Hodges, Arthur Hoff, Olaf	Ch. Eng. Johnson Co., Johnstown, Pa. 25 and 26 Tribune Bldg., Minneapolis,	May	2,	1888
Harmour Pan W D	Minn.	May	Ĝ,	1885
Holbrook, Fred. W. D.	Prin, Asst. Eng. Seattle, Lake Shore & Eastern Ry., Seattle, Wash.	Oet.	6,	1886
Holman, Minard L.	Water Commr., 3744 Finney ave., St. Louis, Mo.	April	.)	1884
HOLT, HERBERT S.	Sherbrooke, Quebec, Canada.	March		
Hood, William	Ch. Eng. Southern Pacific Co., Pacific System, San Francisco, Cal.	Sept.		1876
Hoover, Joseph W.	Cor. Broadway and Ninth st., Kansas City, Mo.	June		1888
HORTON, HORACE E. HOUSE, BRUCE F.	Bridge Builder, Rochester, Minn. Asst. Eng. San Antonio & Aransas	Sept.	6.	1882
	Pass Ry., Fredericksburg, Texas	April	4,	1888
Houston, John	1659 Lexington ave., New York City.	May		1868
Howard, Frederick B,		March Nov.		1878
Howe, Edward W.	Asst. Eng. in chg. Park Construction, City Engineer's Office, Boston.			100=
Howe, Milton G.	Mass. Receiver Houston, East & West Texas		·	1887
Howell, George W.	Ry., Houston, Tex. Lock Box 58, Morristown, N. J.	Oct. 1 May		1872 1888
HOWLAND, ARTHUR H.	71 Equitable Bldg , Boston, Mass.	June		1886
Hoxie, R. L.	Capt. Corps of Engs. U. S. A., Wil-			
HOYT, WILLIAM E.	letts Point, Whitestone P. O., N. Y. Ch. Eng. Buffalo, Rochester & Pitts-	June	2,	1886
	burgh, R. R., Rochester, N. Y.	March	5,	1884

	M EM DEAS.			71
Name.	Address.	Da Memb	te o	f h:
HUDSON, JOHN R. HUGHES, WILLIAM M.	Pomona, Los Angeles Co., Cal. Asst. Gen. Man. Keystone Bridge	May	4,	1887
HUGHES, WILLIAM M.	Co., Pittsburgh, Pa.	June	9	1880
HUMPHREYS, DAVID C.	Prof. Applied Mathematics, Washing-	oune	,	1000
Hoaning, David C,	ton & Lee University, Lexington, Va.	Nov.	2.	1887
HUNT, ALFRED E.	(Hunt and Clapp.) 95 Fifth ave.,			
	Pittsburgh, Pa.	Sept.	1,	1886
HUNT, CHARLES W.	New Rochelle, N. Y.	Jan.	2,	1884
HUNT, RANDELL	Ch. Eng. San Francisco Contracting			
	Co., 6 California st., San Francisco,			
	Cal.	May	2,	1883
HUNT, ROBERT W.	Robert W. Hunt & Co., Bureau of			
	Inspection, etc., The Rookery Bldg.,			
	Chicago, Ill.	June	3,	1885
Huson, Herbert S.	Prin. Asst. Eng. Northern Pacific		_	1.000
TT 107 T)	R. R., Tacoma, Wash.	June	2,	1886
HUTTON, WILLIAM R.	Cons. Eng., 35 Broadway, Room 112,	Tors	0	1070
	New York City.	Jan.	0,	1873
IVES, CHAUNCEY	Ch. Eng. Cumberland Valley R. R.,			
	Chambersburg, Pa.	$_{ m June}$	4,	1884
Lower Cripton P	15 Cortlandt st., Room 78, New York			
Jackson, Charles E.	City.	June	۰)	1886
Jackson, Jones M.	Ch. Eng. for Godeffroy & How, Con-	otthe	-,	1000
JACASON, JUNES MI.	tractors Baltimore and Eastern			
	Shore R. R., Easton. Md.	Sept.	1.	1886
Jackson, Lewis B.	Ch. Eng., Elgin, Joliet & Eastern Ry.,	1	,	
,	and G. C. C. & N Ry., Royal In-			
	surance Bldg., Chicago, Ill.	June	6,	1888
Jackson, William	City Eng., City Hall, Boston, Mass.	Sept.	3,	1884
Jameson, Charles D.	State Univ. of Iowa, Iowa City, Iowa.	March	7,	1888
Jarvis, Charles M.	Pres. and Ch. Eng. The Berlin Iron			
	Bridge Co., East Berlin, Conn.	Jan.		1885
Jaycox, Thomas W.	P. O. Box 189, Leadville, Colo.	Jan.	4,	1882
Jenkins, William D.	Cons. and Civil Eng. (Waddell &			
	Jenkins.) Keith and Perry Bldg.,	Cant	7	1887
Inverse Harry C	Kansas City, Mo. Eng. and Contractor, Denver, Colo.	Sept. April	- 1	1887
JENNINGS, HENRY C. JENNINGS, WILLIAM H.	180 Washington ave. Columbus, O.	Sept		1883
JENNINGS, WILLIAM T.	Eng. and Man. Cons. Canadian	rept	٠,,	1000
January Waller	Pacific Ry., Toronto, Canada.	April	2.	1884
JEWETT, WILLIAM C.	Res. Eng. Cincinnati, New Orleans	1	,	
·	& Texas Pacific Ry., and Alabama			
	Great Southern R. R., Chattanooga,			
	Tenn.	June	3,	1885
Johnson, Charles R.	Pres. and Gen. Man. The Johnson			
	R. R. Signal Co., Rahway, N. J.	June	3,	1885

Name.	Address.	Date of Membership.		
		Memi	летв.	1111,
Johnson, John B.	Prof. Civil. Eng. Washington Univer-		_	*****
	sity, St. Louis, Mo.	April		1886
Johnson, Lorenzo M.	Gen. Man. Mexican International J.	Mar.		1875
	Ry. Co., Eagle Pass, Texas. (M.	April	7.	1880
Johnson, Thomas H.	Prin. Asst. Eng. Pittsburgh, Cinein-			
	nati & St. Louis Ry., Pittsburgh,			
	Pa.	Sept.	,	1877
Johnston, Horace G.	Salina, Kans.	Sept.	,	1887
Johnston, J. Howard	Lima, Peru.	March	1,	1876
Jones, Washington	Supt. Port Richmond Iron Works,			
	2257 Richmond st., Philadelphia,		_	
	Pa.	Oct.		1874
Judson, WM. Pierson	Asst. U. S. Eng., Oswego, N. Y.	Sept.	-	1881
JUENGST, HENRY F.	St. Joseph Water Co., St. Joseph, Mo	April	2,	1884
Katté, Walter	(Director.) Ch. Eng. New York			
	Central & Hudson River R. R.,			
	Grand Central Station (Residence,			
P	10 W. 37th st.) New York City.	Oct.	7,	1858
Keating, Edward H.	City Eng. and Res. Eng. Halifax			
	Graving Dock, Halifax, N. S.	June	7,	1882
Keefer, George A.	Victoria, British Columbia	Jan,	2,	1889
Keefer, Samuel	Brockville, Canada.	Jan.	6,	1869
Keefer, Thomas C.	(Past President.) Ottawa, Canada.	April	4,	1877
KEITH, GEORGE T.	Olean, N. Y.	May	4,	1881
KELLEY, HOWARD G.	Res. Eng. Maintenance Way St. Louis,			
	Arkansas and Texas Ry., Texar-			
	kana, Texas	May	1,	1889
KELLEY, WILLIAM D., JR.	Special Asst. Eng. New Croton Aque-			
	duct, Tarrytown, N. Y.	Nov.	2,	1887
Kellogg, Charles	Pres. Elmira Bridge Co., Ltd., El-			
	mira, N. Y. (Residence, Athens,			
	Pa.)	June	2,	1880
Kelly, Cassius W.	18 City Hall, New Haven, Conn. M.	Mar.	1,	1882
INELLI, CASSIUS II.	M.	June	6,	1888
KELLY, WILLIAM E.	Civil Eng., New Brunswick, N. J.	Feb.	17,	1869
KENDRICK, JOHN W.	Ch. Eng. Northern Pacific R.R., St.			
	Paul, Minn.	June	-6,	1883
Kennedy, John	Ch. Eng. Montreal Harbor Commrs.,			
	Montreal, Canada.	Sept.	1,	1875
KENNEDY, WILLIAM H.	Ch. Eng. Oregon Ry., & Navigation			
	Co., Portland, Ore.	Sept.	6,	1871
KIELLAND, S. MUNCH	Asst. Eng. Lehigh Valley R. R.,			
	Buffalo, N. Y.	Feb.	6,	1889
Kiersted, W.	Ch. Eng. The Central Water Works			
	Cons. Co., 509 Baird Bldg., Kansas			
	City, Mo.	Oct.	5,	1887

Name.	Address,	Da Meml	ite c	
KILLEBREW, SAMUEL	Brownsville, Tenn.	Sept.	2.	1885
Kimball, Francis W.	Man. of Construction Chicago, Milwaukee & St. Paul Ry., Milwaukee,			
King, Frank P.	Wis. Asst. Ch. Eng. Denver & Rio Grande Ry., 17 Cheesman Block, Denver,	May	2,	1883
	Colo.	April	3,	1889
Kingman, Lewis	City Eng., Topeka, Kans.	July	1,	1885
Kingsley, Marvin W.	Asst. Eng. Cleveland Water Works, 354 Superior st., Cleveland, O.	July	3,	1878
KINNEY, EDWARD C.	Asst. to Ch. Eng. Union Pacific Ry.,			
	Denver, Colo.	May	,	1882
Kinsley, Thomas P.	421 Warren st., Syracuse, N. Y.	Feb.	5,	1873
KIRTLAND, ALFRED P.	Supt, West Penn, Div. Pennsylvania R. R., Blairsville, Pa.	Sept.	7	1887
KITTREDGE, GEORGE W.	Eng. Maintenance of Way Pittsburgh,	ьери.	1,	100+
	Cincinnati & St. Louis Ry. Div.			
	Pennsylvania Lines, west of Pitts-			
	burgh; Eng. Union Depot Co., Col-			
	umbus, Ohio. Address: Pittsburgh, Pa.	Jan.	e	1000
Knap, Joseph M.	365 West st., New York City.	aan. April	- 1	$\frac{1886}{1882}$
KNAPP, LOUIS H.	Supt. Buffalo Water Works, 280 Lin-	21/111	9,	1002
,	wood ave., Buffalo, N. Y.	March	4,	1874
KNIGHT, WILLIAM B.	Civil Eng., Kansas City, Mo. $\begin{cases} J. \\ M \end{cases}$	Jan.	6,	1875
Kuichling, Emil	Cons. Eng., 29 and 30 Rochester	Jan.	7,	1880
Referring, Larin	Savings Bank Bldg., Rochester,			
	N. Y.	Sept.	3,	1884
Lafon, Thomas	Columbia, Mo.	March	3,	1875
Haros, Thomas	M.	Nov.	5,	1884
LANDOR, EDWARD J.	Vice-Pres. and Eng. Wrought Iron			
	Bridge Co., 127 N. Poplar st., Canton, Ohio.	Manch	7	1000
LANDRETH, OLIN H.	Prof. of Engineering Vanderbilt Uni-	March	۲,	1000
,	versity and Cons. Eng., Nashville,			
	Tenn.	Sept.	3,	1884
LANDRETH, WILLIAM B.	Constr. Eng., Sewer Commrs., Am-		0	4.6000
Legge Money	sterdam, N. Y.	Oct.	,	1888
Lassig, Moritz Latcha, Jacob A.	97 Dearborn st., Room 5, Chicago, Ill. Ch. Eng. and Supt. Cons. Duluth,	April	<u>-</u> ,	1884
	South Shore & Atlantic Ry., Mar-			
	quette, Mich.	May	7,	1873
LATHAM, HARRY H.	Cons. Eng. and Manufr. Machinery,			
	304 and 306 Dearborn st., Chicago,	T)	*)	100-
	111.	Dec.	2,	1885

Name.	Address.	Da Memb		
LATROBE, CHARLES H.	Civil and Cons. Eng , Gen. Supt. and	and the same	JC 1 5	
	Eng. Public Parks, 213 German st.,			
	Baltimore, Md.	Nov.	16,	1870
LAWTON, WILLIAM H., JR.	Street Commr. and Surveyor of High-			
	ways, Newport, R. I.	June	2,	1886
LEAVITT, ERASMUS D.	Mech. Eng., 2 Central sq., Cambridge-			
	port, Mass.	July	2,	1873
LEAVITT, FRANK M.	Vice-Pres. E. W. Bliss Co., 17 Adams	T	2	400=
In Paper I Prayers	st., Brooklyn, N. Y.	Dec.	2,	1885
LE BARON, J. FRANCIS	First Asst. Eng. in chge. Expedition, Nicaragua Canal Cons. Co., Grey-			
	town, Nicaragua, Cent. America.	June	7	1882
LE CONTE, LOUIS J.	Asst. U. S. Eng. in chg. Oakland	0 11220	٠,	1001
,	Harbour Works, P. O. Box 358,			
	Oakland, Cal.	April	4,	1877
LEDLIE, CHARLES H.	Cons, Eng.,417 Olive st , St Louis, Mo.	Jan.	4,	1888
LEDERLE, GEORGE A	(Care Oregon Ry., and Navigation \ J.	May	2,	1883
	Co.), Riparia, Wash M.	Oct.	6,	1886
Leers, Frank A.	Eng. Passaie Rolling Mill, Paterson,			
	N. J.	May		1887
Lehlbach, Gustav	770 Broad st., Newark, N. J.	March	7,	1883
LEHNARTZ, FREDERICK W.	U. S. Asst Eng., Grand Rapids, Mich.	Aug.	6,	1879
LEVERICH, GABRIEL	41 Nassau st., Brooklyn, N. Y. (Resi-			
	dence, Maplewood, N. J.)	July	6,	1870
LEWIS, EUGENE C.	Pres. Sycamore Powder Co., Nash-	25 1	_	4 N = 0
T T NV	ville, Tenn.	March	,	
LEWIS, EVERETT W.	City Engrs. Office, Duluth, Minn.	May	2,	1888
LEWIS, SIDNEY F.	Asst. State Eng., 289 Royal st., New Orleans, La.	May	.4	1881
LIBBY, EDMUND D.	N. E. cor. Eleventh and Orange sts.,	may	τ,	1001
	Wilmington, Del	May	6.	1885
LIGHT, ALEXANDER L.	Ch. Eng. Govt Rys. Province of Que-	٠	,	
	bec, Quebec, Canada.	Sept.	7,	1881
LINCOLN, WILLIAM S.	Ch. Eng. Wabash Western Ry., St			
	Louis, Mo.	Dec.	5,	1883
LINDENTHAL, GUSTAV	Civil Eng., Lewis Block, Pittsburgh,			
Tarana T II	Pa.	May	3,	1882
Linville, Jacob H.	Cons. Eng., 3610 Walnut st., Phila-	Mary	9	1077
Locke, Augustus W.	delphia, Pa.	May June	,	1875 1882
LOCKE, CHARLES A.	North Adams, Mass. Asst. Eng. Nashville, Tenn.	Oct.	3,	1888
Long, Thomas J.	(Care Union Bridge Co.) 1 Broad- (J.	Nov.	2,	1875
and the same of th	, , , , , , , , , , , , , , , , , , , ,	Jan.	7,	1880
LOOMIS, HORACE	Engin-chg. Sewers, Dept. of Public		,,	
	Works, 31 Chambers st., New York			
	City.	Nov.	5,	1879

Name.	Address.		ate o	
Loree, Leonor F.	Eng. Maintenance of Way C. & P.			
	Div. Pennsylvania Co., Wellsville,	0.4	e	1000
Lotz, William H.	Ohio. Mech. Eng. 68 Metropolitan Block,	Oct.	υ,	1886
AND THE RESERVE OF THE PERSON	Chicago, Ill.	Sept.	1,	1875
LOVETT, THOMAS D.	Cons. Eng., 49 West Third st., Cincin-	3.5		1051
Low, EMILE	nati, Ohio. Div. Eng. Clinch Valley Div. Norfolk	May	3,	1871
21011, 2131131	& Western R. R., Tazewell, C. H., Va.	May	2,	1888
Low, Gorham P.	Gloucester, Mass.	April	21,	1869
LOWETH, CHARLES F.	560 Drake Block, St. Paul, Minn.	Jan. Feb.	3, 6,	1883 1884
Lucas, D. Jones	(Care Am. Soc. C. E.) 127 East (J.	Sept.	6,	1876
	Twenty-third, New York City. M.	July	4,	1888
Lucius, Albert	Civil Eng., 71 Broadway, New York	311	ี	1600
LUDLOW, WILLIAM	City. Maj. of Engs. Byt. LtCol. U. S. A.,	March	ι ο,	1886
and the second second	Detroit, Mich.	July	5,	1882
LUNDIE, JOHN	Asst. City Eng., City Hall, Chicago, Ill.	July	4,	1888
LUTZ, ULYSSES S.	Holmesburg, 23d Ward, Philadelphia, Pa.	July	6,	1887
*	I d.	omy	0,	1001
Macdonald, Charles	Union Bridge Co , 1 Broadway, New York City.	Sept.	15,	1869
MacFarlane, James	Anaconda, Montana.	April	4,	1888
Mackenzie, Alexander	Maj. Corps of Engs. U. S. A., Rock Island, Ill.	Feb.	2,	1887
Macklin, John G.	Ch. Eng. Midland Div. Grand Trunk			
M Wasana W	Ry., Peterborough, Ont., Canada.	May	4,	1887
Maclay, William W.	Supt. Dept. of Docks, office foot of Chambers st., North River (Resi-			
	dence, 24 West 120th st.) New York			
	City.	Nov.	6,	1872
MacLeon, John	Ch. Eng. Kentucky & Indiana Bridge and Belt Ry.; Ch. Eng. Louisville			
	Southern Ry. (Residence, 1205 Sec-			
	ond st.) Louisville, Ky.	July	10,	1872
MacNaughton, James	248 State st., Albany, N. Y.	May	5,	1880
MacRitchie, Charles	171 La Salle st , Chicago, Ill.	April July	5, 12,	1876 1877
Macy, Arthur	29 Libouty et Now York City	Dec.	2,	1885
Maguire, Edward	Capt. Corps of Engs. U. S. A., Fourth			
	floor, Room 20, P. O. Bldg., Phila-	Sont	-	1660
Mais, Henry C.	delphia, Pa. Cons. Eng., 61 Queen st., Melbourne,	Sept.	Э,	1888
,	Victoria, Australia.	June	6,	1883
MALLORY, GEORGE B.	55 Broadway, New York City.	Se pt.	3,	1884

Name.	Address.	Date of Membership.		
Man, Albon P., Jr.	Gen. Man, and Acting Ch. Eng. Silver			
	Springs, Ocala & Gulf R. R., Ocala,			
	Fla.	Sept.	5,	1883
Manley, Henry	Asst. Eng. City Engineer Dept., Bos-			
	ton, Mass.	June		1880
Mann, George E.	City Eng., City Hall, Buffalo, N. Y.	Sept.	3,	1884
Mansfield, M. W.	Supt. Indianapolis & Vincennes R.R.,			
	Indianapolis, Ind.	July	5,	1882
Manson, Marsden	Ch. Eng. Board of Harbor Com., 10	Cant	e	1000
	California st., San Francisco, Cal.	Sept.	о,	1882
Marindin, Henry L.	Asst. U. S. Coast and Geodetic Survey,	35	~	T004
Man Croper 1	Washington, D. C. * U. S. Asst. Eng., U. S. Eng. Office,	May	1,	1884
MARR, GEORGE A.	1415 Washington ave., St. Louis,			
	Mo.	Oct.	3	1883
Marsland, Edward	U. S. Local Inspector of Steam Ves-	001.	٠,	1000
,	sels, Room 156, P. O. Building,			
	New York City.	Feb.	6	1878
Martin, Charles C.	Ch. Eng. and Supt. New York and			
	Brooklyn Bridge, 179 Washington			4
	st., Brooklyn, N. Y.	July		1872
Mason, Arthur J.	1423 Jefferson st., Kansas City, Mo.	Sept.	٠),	1888
Mason, Sampson D.	Prin, Asst. Eng. Northern Pacific R. R., St. Paul, Minn.	Oct,	в	1886
Masten, Cornelius S.	Vice-Pres. and Man. Maricopa &	Oct,	0,	1000
MASIEN, CORNELIUS IS.	Phoenix R. R., Phoenix, Ariz.	Sept.	6.	1871
Maurice, Charles S.	Union Bridge Co., Athens, Pa.	May		1872
MAXIM, HIRAM S.	Man, Director Maxim Gun Co., Cray-			
Translating Advantage 750	ford, Kent, England.	Oct.	7,	1885
Maxson, Frank O.	Civil Eng. U. S. N., 647 E. Capitol st.,			
ŕ	Washington, D. C.	May	1,	1889
MAXWELL, DAVID F.	Ch. Eng. New Brunswick Govt. Rys.,			
	St. Stephen, N. B , Canada.	March		
MAXWELL, JAMES R.	Newark, Delaware.	April	17,	1872
MAY, WILLIAM A.	Supt. Hillside Coal & Iron Co., Drawer		0	
W T	U, Scranton, Pa.	July		1881
McClintock, William E.	City Eng. Chelsea, Mass.	Dec.	ο,	1888
McClintock, William H.	Supt. Columbus & Western Div. Cen-			
	tral R. R. & Banking Co. of Georgia, Columbus, Ga.	April	~	1876
		Mun	٠٠,	1016
McClure, Robert J.	(Care Chicago Burlington & Quincy	Oct.	G	1886
35 G H/ D	R. R.) Chicago, Ill.	Oct.	0,	1000
McClure, Wilbur F.	Ch. Eng. Los Angeles, Pasadena & Glendale Ry., U. S. Dep. Mineral			
	Surveyor, Garvanza, Cal.	Nov.	3	1886
	our croi, curring, our	21011	,	2000

Name.	Address.		ate o	of ship.
McCollom, Thomas C.	Civil Eng. U. S. N., U. S. Navy Yard,			Jaip.
	New York.	May	3.	1882
McComb, David E.	Asst. Eng. District Government,		٠,	2002
	Washington, D. C.	Feb.	7.	1877
McCool, Daniel	Gen Man. California Southern R R.		.,	
	and California Central Ry., Los			
	Angeles, Cal.	Sept.	5,	1884
McDonald, Harry P.	(McDonald Bros Architects,) 41 and	•		
	44 Bull Block, Louisville, Ky.	March	5,	1884
McDonald, Hunter	Asst Eng. Nashville Chatta-			
				1883
	burg, Tenn.	. March	7,	1888
McDowell, Nathan M.	Civil Eng. Allegheny City, Pa.	April	4,	1877
McGrath, Wallace	Topeka, Kans	Sept.	5,	1883
McKee, Charles H.	Asst. Eng. New York Central & Hud-			
	son River R. R., Buffalo, N. Y.	June	4,	1879
McKee, Samuel B.	Asst. Eng. Ontario, Carbondale &			
	Scranton Ry., Hancock, N. Y.	June	2,	1886
McKenzie, Theodore H.	Secy. and Treas. Southington Water			
	Co.; Ch. Eng. Naugatuck Water			
	Works, Southington, Conn.	Sept.	7,	1881
McKeown, Thomas	37 City road, London, E. C., England.	Dec.	3,	1879
McLain, Louis R.	Contractor for Alabama Midland Ry.			
MAL D. T.	Ozark, Ala	Feb.	2,	1881
McMath, Robert E	(Director.) Sewer Com., City Hall,	75 .		
M M	St. Louis, Mo.	March	3,	1880
McMillan, Charles	Prof. of Engineering, College of New	_		
M. V France C	Jersey, Princeton, N. J.	Jan.	29,	1868
McNair, Thomas S.	Res. Eng. Lehigh Valley R. R., Hazel-	7)	_	
W. V. W. Cuanan W	ton, Pa.	July		1873
McNulty, George W.	53 Broadway, New York City.	May	5,	1880
McVean, John J.	Ch. Eng. Detroit, Lansing & Northern R. R. and Chicago & West Michigan			
	Ry., Ionia, Mich.	Stand	9	1004
MEIER, EDWARD D.	Pres. and Ch. Eng. Heine Safety	Sept.	ð,	1884
Stelen, Libwani D.	Boiler Co., 102 North Main st., St.			
	Louis, Mo.	Feb.	.1	1880
Meigs, Montgomery	U. S. Civil Eng. (in charge Des Moines	100.	4,	1000
Transco, Transconding	Rapids Canal), Keokuk, Ia	March	10	1970
MELVIN, DAVID N.	Linoleumville, Richmond Co., N. Y.	June	,	1878
MENDELL, GEORGE H.	Col. Corps of Engs., Bvt. Col. U.S.A.,	ounc	υ,	1010
,	San Francisco, Cal.	Sept.	6	1876
MENOCAL, ANICETO G.	Civil Eng. U. S. N., Ch. Eng. Nicar-	130170	0,	2010
	agua Canal Cons. Co., 2012 Hillyer			
	place, Washington, D. C.	Feb.	3.	1875
MERIWETHER, NILES	City Eng., 14 Talbot st., Memphis,		,	
	Tenn.	Nov.	1,	1871
			,	

•				
Name.	Address.	Mem	ate o bers	
MERRILL, GEORGE N.	Res Eng. Poughkeepsie & Connecti-			
,	cut R. R., 143 Catherine st., Springfield, Mass.	May	1	1889
MERRILL, WILLIAM E.	LtCol. Corps of Engs. U S. A., Cus-			
	tom House, Cincinnati, Ohio.	Oct	16,	1872
MERRILL, WILLIAM F.	Gen. Man. Hannibal & St. Joseph R. R. and Kansas City, St. Joseph &			
	Council Bluffs R R., St. Joseph, Mo.	April	1,	1874
Merriman, Mansfield	Prof. of Civil Engineering, Lehigh J.	May	12,	1875
		Sept.	3,	1884
Mersereau, Charles V.	Asst Eng St. Louis Water Works	D	9	1004
Metcalf, William	Extension, St. Louis, Mo. Crescent Steel Works, 136 First ave.,	Dec.	٥,	1884
MEICALE, WILLIAM	Pittsburgh, Pa	July	2.	1874
MEYER, THOMAS C.	13 Waverley pl., New York City.	Dec		1852
Michaelis, Otho E.	Maj. Ordnance Corps U. S. A., Kenne-		Í	
	bec Arsenal, Augusta, Maine.	May	6,	1874
MILLER, ALEXANDER M.	Maj. Corps of Engs. U. S. A., St.			
	Louis, Mo.	June	6,	1888
MILLER, HARRY I.	Supt. Southern Div. Chicago, St. Louis & Pittsburgh R. R., Rich-			
	mond. Ind.	May	2,	1888
Miller, J. Imbrie	3928 Walnut st., Philadelphia, Pa.	Oct	5,	1887
MILLER, REUBEN	Crescent Steel Works, 136 First ave.,	~		
31 C II	Pittsburgh, Pa.	Sept.	1,	1875
MILLER, SAMUEL H.	Ch. Eng. Chicago & Eastern Illinois R. R., Danville, Ill.	Sept.	ß	1882
MILLER, SILVANUS	Supt. Chinamit Mine, Las Quebradas,	верт.	Ο,	100=
Tallian I and the control of the con	Isabal, Guatemala, Central America,	March	1 2,	1887
MILLS, ARTHUR L.	Ch. Eng. Toledo, St. Louis and Kan-		ĺ	
	sas City Ry., Toledo, Ohio.	May	2,	1888
Mills, James E.	Cons. Geologist and Mining Eng.,			
	2106 Van Ness Ave., San Francisco,	Feb.	9	1886
Manual Pour in P	Cal. Shoreham, Addison Co. Vt.	Nov.		1887
MINTURN, ROWLAND R. MITCHELL, HENRY	18 Hawthorne st., Roxbury, Mass	Jan.		1880
Monroe, J. Albert	New London, Conn.	Sept.		1869
Montfort, Richard	Ch. Eng , Louisville and Nashville	~ op o	,	
,	R. R , Louisville, Ky.	June	6,	1888
Moore, Charles E	Civil Eng., Santa Clara, Cal.	Jan.	7,	1880
Moore, James	Cons. Eng Central R. R. of New Jersey, Elizabeth, N. J.	Dec.	4.	1867
Moore, Robert	Ch. Eng. St. Louis Merchants Bridge		_,	
	Terminal Ry., Laclede Bldg.,			
	Room 52, St. Louis, Mo.	April	,	1876
Morison, George S.	205 La Salle st., Chicago, Ill.	Jan.	,	1875
Morley, James H.	Room 7, Temple Bldg., St. Louis, Mo.	Oct.	6,	1886

Name.	Address.		ate o abers	
Morrill, George S.	Ch. Eng. Old Colony R. R., Boston,			
7F 0 T 1	Mass.	March	1 2,	1887
Morris, Charles J. A.	555 Drake Block, (P. O. Box 2544) St.	0.1	0	1000
Morris, Gouverneur	Paul, Minn. Getty House, Yonkers, N. Y.	Oct.		1883 1888
Morris, Henry G.	Eng. and Machinist, 926 Drexel Bldg.,	Oct.	0,	1000
nioning, indinin ().	Philadelphia, Pa.	Dec	4.	1867
Morris, Marshall	530 W. Walnut st., Louisville, Ky.	March	,	
Morris, Robert C.	Ch. Eng. Nashville, Chattanooga &		,	
	St. Louis R R., Nashville, Tenn.	Jan.	7,	1874
Morris, S. Fisher	Div. Eng. New Croton Aqueduct,			
	Box 790, Yonkers, N. Y.	April	6,	1887
Morris, Thomas O.	Eng. Maintenance Way, Cincinnati,			
	Indianapolis, St Louis & Chicago		2	4000
Monon Province E	Ry., Indianapolis, Ind.	Oct.	6,	1886
Morse, Benjamin F.	Civil and Cons. Eng and Architect, Room 4, Society for Savings Bank,			
	2d story, Cleveland, Ohio.	July	12	1877
Morse, Charles J.	Youngstown, Ohio.	Feb.	6,	
Morse, Henry G.	Pres. Edge Moor Bridge Works, Edge		-,	
	Moor, Del	April	7,	1880
Morss, Foster	Red Falls, Greene Co., N. Y.	Nov.	6,	1872
Mosman, Alonzo T.	U. S. Coast and Geodetic Survey,			
	Washington, D. C.	July	1,	1885
Moulton, Mace	Cons. Eng. Berlin Iron Bridge Co.,	Y		1004
Moylan, James	East Berlin, Conn. Civil Eng. 330 Palisade ave, Jersey	June	4,	1884
MOTIAN, VANIES	City, N. J.	Nov.	2	1887
MÜNSTER, A.	City Engrs. office, St. Paul, Minn.	May		1889
MURDOCH, GILBERT	Supt. Water Works, St. John, New		-,	2300
	Brunswick.	Sept.	7,	1881
Myers, Charles H.	2775 Third ave., New York City.	Aug.	5,	1868
Myers, Edmund D. T.	Gen. Supt. Richmond, Fredericks-			
	burg & Potomac R. R., Richmond,			
	Va.	May	2,	1888
Nash, Charles H.	Bloomfield, N. J.	Sept.	5	1888
Neilson, Charles	Gen. Supt. Cincinnati, Hamilton &	юсре.	٠,	1000
,	Dayton R. R., Cincinnati, Ohio.	Jan.	7.	1880
NEILSON, ROBERT	Gen. Supt. P. & E. Div. Penn. R. R.			
	and Northern Central Ry., Williams-			
	port, Pa.	Feb.	17,	1869
Nelles, George T.	Civil and Cons. Eng., Room 16,			
VI	Chamber of Commerce, Omaha, Neb.	Oct.	3,	1888
Newell, John	Pres. and Gen. Man. Lake Shore &			
	Michigan Southern Ry., 348 Ontario st., Chicago, Ill.	Jan.	90	1868
	st., Onteago, III.	oan.	2.7,	1000

Name.	Address.	Da Memb	te of	
NEWHAM, CHARLES E.	(Culver and Newham, Civil Engrs.)			
	145 Broadway, New York City.	Dec.		1887
NEWMAN, ROBERT M.	415 W. Franklin st., Jackson, Mich.	May	6,	1874
NEXSEN, ELBERT	1620 Fourth st., S. E., Minneapolis, Minn.	D.,	~	1000
NICHOL, JOHN	171 La Salle st., Chicago, Ill.	Dec. April		$1883 \\ 1876$
Nichols, Othniel F.	Ch. Eng. Union and Brooklyn Elevated Ry., 31 Sands st., Brooklyn, N. Y.	June		1876
NICHOLS, NORMAN J.	Eng. "Las Brujas" Gold Mining Co., Honda, Republic of Colombia.	Dec.		1888
NICHOLS, WILLARD A.	First Asst. Eng. Dept. of Docks, Pier A, North River, New York City.	May	ŕ	1873
NICHOLSON, GEORGE B.	Ch. Eng. Cincinnati, New Orleans & Texas Pacific Ry., 530 Garrard st., Covington, Ky.	May	·	1878
NICOLLS, WILLIAM J.	Treas. Irvona Coal Co., 216 South	272(1)	-,	1010
and out of	Third st., Philadelphia, Pa.	June	5,	1878
None Armen	J.	Sept.	2,	1874
Noble, Alfred	Memphis, Tenn. { M.	April	3,	1878
NORMAN, GEORGE H.	Newport, R. I.	Feb.	19,	1869
NORTH, EDWARD P.	(Care Am. Soc. C. E.) 127 East Twenty-third st., New York City.	Dec.	4,	1867
Nourse, Edwin G.	Asst. Eng. Maintenance of Way, Chicago, Santa Fé & California Ry.	~ .		
Young Arnam F	Rialto Bldg., Room 612, Chicago, Ill.	Sept.		1884
Noyes, Albert F.	City Engineer, West Newton, Mass.	Dec.	3,	1884
Ockerson, John A.	Vice-Pres. and Man. Silver Age Min- ing & Milling Co., Idaho Springs, Colo.	July	7	1880
ODELL, FREDERICK S.	15th ave., Mt. Vernon, N. Y.	March		
O'Hanly, John L. P.	Ch. Eng. Ontario Pacific Ry., Ottawa, Ontario, Canada.	Sept.	·	1883
OLNEY, GEORGE R.	Asst. Eng. New Croton Aqueduct, Yonkers, N. Y.	March	7,	1888
OLNEY, LAFAYETTE	Middletown, N. Y.	Oct.	7,	1868
OPDYKE, STACY B., Jr.	Gen. Supt. Hartford & Connecticut Western R. R., Hartford, Conn.	Feb.	2,	1876
ORBISON, THOMAS W. O'ROURKE, JOHN F.	Appleton, Wis. Eng. of Dawson, Symmes & Ussher, Contractors Chignecto Marine	Sept.	3,	1884
OSBORN, FRANK C.	Transport Ry., Amherst, N. S. Eng. King Iron Bridge and Mfg. Co.,	April		1884
	Cleveland, Ohio.	Oct.	3,	1888

Name.	Address.	Da Mem	ate o	
Osgood, Joseph O.	Cons. Eng., 120 Broadway, New J J.	May	3,	1876
		March	5,	1879
OWEN, FREDERICK N.	13 William st., New York City.	Sept.	7,	1887
OWEN, JAMES	721 Broad st., Newark, N. J.	Sept.	15,	1869
Packard, Ralph G.	Pres. and Gen. Man. Atlantic Dredg-			
,	ing Co., 34 Pine st., New York City.			
	(Residence, Morristown, N. J.)	Feb.	17,	1869
Paine, Arthur B.	Ch. Eng. Manhattan Bridge Bldg. Co.,		ĺ	
	Nelson House, Poughkeepsie, N. Y.	Sept.	6,	1882
Paine, Charles	(Past President.) Vice-Pres. Phila-			
	delphia Co., 820 Penn. ave., Pitts-			
	burgh, Pa.	Dec.	4,	1867
PAINE, WILLIAM H.	Cons. and Constr. Eng. 102 Broadway,			
	New York City.	May	12,	1875
Palmer, Cornelius	Supt. Bridges and Bldgs. Peninsula			
	Div. Chicago & Northwestern Ry.,	37	0	100
D. T.	Escanaba, Mich.	Nov.	2,	1887
PARENT, ETIENNE H.	Supt. Eng. of Canals, 27 Common st., Montreal, Canada.	Cant	7	1001
PARET, MILNOR P.	U. S. Resident Eng., Fernandina, Fla.	Sept.	2,	1881 1885
PARKER, ANDREW McC.	Asst. Eng. Dept. Docks, Pier A, North	Sept.	,	1000
TAIREN, IIIDREN 1100.	River, New York City.	March	6	1889
PARKHURST, HENRY W.	Res. Eng. St. Louis Merchants Bridge,	manch	0,	1000
	64 Laclede Bldg., St. Louis, Mo.	Sept.	5,	1877
PARSONS, HENRY C.	State Engineer's Office, Albany, N. Y.	Oct.	6,	1886
Parsons, Wm. Barclay	Civil Eng., 35 Broadway, New J.	June	7,	1882
	York City. M.	Nov.	2,	1887
Partridge, John A.	315 4½ st., N. W., Washington, D. C.	Sept.	6,	1882
PATTEN, HENRY B.	Div. Eng. Union Pacific R. R.,			
	Cheyenne, Wyo.	Jan.	4,	1888
Pearl, James W.	Prin. Asst. Eng. Wrought Iron Bridge			
- G W	Co., Canton, Ohio.	Jan.	2,	1889
PEARSONS, GALEN W.	Kansas City, Mo.	Jan.	6,	1875
Peary, Robert E.	Civil Eng. U. S. N., U. S. Navy Yard,	3.5 1	0	1004
Proper Croper H	League Island, Pa.	March	,	1886
PEGRAM, GEORGE H.	Cons. Eng., 18 Broadway, New J.	April Jan.		1880
PERKINS, CHARLES P.	York City. (M. Real Estate Department Popp	9811.	3,	1883
z gillino, Cilianas z .	Real Estate Department, Penn. R. R., 233 South Fourth st., J. Philadelphia Pa	Feb.	3,	1875
	Philadelphia, Pa.	April	5,	1882
Peterson, P. Alex.	Cons. Eng. Canadian Pacific Ry.,			
	Montreal, Canada.	Jan.	5,	1876
Petry, Alfred	Res. Eng. New Water Works, Room 2,			
	First National Bank Bldg., Coving-			
	ton, Ky.	Oct.	6,	1886

Name.	Address.	Date of Membership.		
PETTIT, ROBERT E.	Gen, Supt. P. R. R. Div. Penn. R. R.	2020111	0010	m.p.
TEITI, ROBERT L.	Altoona, Pa.	Nov.	J,	1876
PICKETT, WILLIAM D.	Mee-tee-tse, Wyoming.	July	6,	1853
PLAYLE, EDWARD F.	Asst. Eng. New Croton Aqueduct, Hotel Winthrop, Seventh ave. and 125th st., New York City.	Nov.	2,	1887
PLYMPTON, GEORGE W.	Prof. Physical Science, Brooklyn Collegiate and Polytechnic Inst. (Residence, 127 Herkimer st.) Brooklyn, N. Y.	Jan.	29	1868
Poe, Orlando M.	Col. Corps of Engs., Bvt. BrigGen., U. S. A., 34 West Congress st., Detroit, Mich.	Jan.		1873
Portecu Character I		May		1881
Poetsch, Charles J.	Asst. City Eng., Milwaukee, Wis. $\begin{cases} J. \\ M. \end{cases}$	May	2.	1883
Pope, Willard S.	Pres. Detroit Bridge and Iron Works, Detroit, Mich.	Aug.	7.	1872
PORTER, ALBERT H.	King Iron Bridge and Mfg. Co., Cleve-			
Post, Andrew J.	land, Ohio. Office 102 Broadway, New York City. (Residence, 136 Magnolia ave., Jer-	March		
Post, James C.	sey City, N. J.) Maj. Corps of Engs. U. S. A. (Care	Nov.	ĺ	1871 1878
Post, Levi W.	U. S. Legation), London, England. 28 Merritts ave., Atlanta, Ga.	March		
Pott, John N.	Min. Eng. Wyoming Div. L. & W. B.		ĺ	
1011, 9083 11.	Coal Co., Wilkes-Barre, Pa.	April	3,	1889
POTTER, HENRY W.	Calle San Juan de Letran 4, Apartado de Correo 198, Mexico, Mexico.	Dec.	5,	1888
Potts, Joseph D.	Pres. Enterprise Transit Co., 234 South Fourth st., Philadelphia, Pa.	Aug.	ă.	1868
Potts, Richard	Div. Eng. Bureau of Sewers, City	8*	-,	
	Hall, Chicago, Ill.	June	1,	1870
Pou, Arthur	Civil Eng., Talbotton, Ga.	Dec.	2,	1885
Powell, Charles F.	Capt. Corps of Engs. U. S. A., 2732 Pine st., St. Lonis, Mo.	Oct.	3,	1888
Pratt, William A.	Eng. Maintenance Way, Philadelphia, Div. Baltimore & Ohio R. R., Cor. 24th and Chestnut sts., Philadel- phia, Pa. (Residence, 1419 Harrison	T1		1000
PRENDERGAST, FRANCIS E.	st., Wilmington, Del.) Res. Eng. St. Mary's Falls Water	July		1882
TO	Power Co., Sault Ste. Marie, Mich.	Marci	1 /,	1888
Prevost, Sutherland M.	Gen. Supt. Transportation Penn. R. R., 233 South Fourth st., Phila-			1055
	delphia, Pa.	Jan.	6	, 1875

Name.	Address.	Mem	ate d bers	
PRICE, PHILIP M.	Capt. Corps Engs. U. S. A., Mont-			
	gomery, Ala.	May	2,	1888
PRINCE, EDWARD	Quincy, Ill.	Feb.		1878
D		Nov.	1,	1882
Prindle, Franklin C.	Civ. Eng. U. S. N., Ch. Eng. and Supt. Carolina Oil and Creosote Co, Wilmington, N. C.	March	4	1874
PRIOR, CHARLES H.	Asst. Gen. Supt. Chicago, Milwaukee, & St. Paul Ry., Minneapolis, Minn.	March		
Probasco, Samuel R.	179 Washington st., Brooklyn, N. Y.	Nov.		1868
PROUT, HENRY G.	Editor Railroad Gazette, 73 Broad- (A.	Nov.		1872
	way, New York City.	Sept.		1879
Purdon, Charles D.	Res. Eng. Cumberland Valley Branch L. & N. R. R., Pineville, Ky.	March		
Quintus, John C.	Erie, Pa.	Jan.	2,	1889
RADENHURST, WILLIAM N.	Asst. Eng. Rochester Water J.	July		1875
D. Townson W	Works; Rochester, N. Y. M.	July	ι,	1880
Rafter, George W.	Civil and San. Eng., 32 City Hall, Rochester, N. Y.	April	2,	1884
RANDOLPH, BEVERLEY S.	Mining Supt. Consolidation Coal Co.,	May	o.	1888
RAY, NATHANIEL C.	Frostburg, Md. (Ray and Moulthrop.) Butte City,	may	۷,	1000
ital, maintaina o.	Mont.	July	5,	1882
RAYMOND, CHARLES WARD	Cons. and Contr. Electrical and (J.	Nov.	7	1877
		April	- 1	1886
Rea, Samuel	Asst. to Second Vice-Pres. Penn. R.R.,			
	233 South Fourth st., Philadelphia,	T		1004
READ, ROBERT L.	Pa. Civil Eng., 49 West Third st., Cin-	June	+.	1884
READ, ROBERT 12.	cinnati, O.	Sept.	2,	1874
Reece, Benjamin	Eng. M. S. Div. Lake Shore and Michigan Southern R. R. Toledo, O.	March	9	1881
REED, EDWARD M.	Vice-Pres. New York, New Haven &	мин		1001
	Hartford R. R., New Haven, Conn.	July	10,	1872
REED, HENRY W.,	Mast. of Roadway, Savannah, Florida & Western Ry., Way Cross, Ga.	Jan.	6.	1886
REED, HORATIO G. H.	Cons. Ch. Eng. Milwaukee, Lake	01021	٠,	1000
	Shore & Western R.R., Lindenwood			
	Farm, Oshkosh, Wis.	Oct.		1874
REED, SAMUEL B.	Civil Eng., Joliet, Ill.	Oet.	20,	1869
Reevės, David	Pres. The Phœnix Iron Co., 410 \(J. \)	April	1,	1874
	Walnut st., Philadelphia, Pa. M.	May	3,	1882

Name.	Address.	Meml	te of persi	
RHODES, BENJAMIN	Man. Brush Electric Light Co.,			
Tello Desi, Dello Allini	Niagara Falls, N. Y.	April	5,	1882
RICE, EDWARD C.	3649 Pine st., St. Louis, Mo.	April	7,	1875
RICE, GEORGE S.	Dep. Ch. Eng. Aqueduct Com., 213			
———	Stewart Bldg., New York City.	Feb.	1,	1882
RICE, L. FRED.	American House, Boston, Mass.	Jan.	2,	1889
RICE, WALTER P.	City Civil Eng., Cleveland, Ohio.	March	6,	1889
RICH, WATSON W.	Ch. Eng., Minneapolis, St. Paul & Sault Ste. Marie Ry., Minneapolis,	g 1	-	1000
<i>T</i>	Minn.	Sept.	Э,	1883
RICHARDS, CHARLES B.	Prof. Mech. Eng., Sheffield Scientific School, Yale College, (P.O. Address	Ana	7	1872
Promines H Times	313 York st.) New Haven, Conn Asst. Gen. Man. Sonoro R. R., Guay-	Aug.	١,	1012
Richards, H. Tudor	mas, Sonora, Mexico.	Oct.	б.	1886
RICHARDSON, B. FRANK	Div Eng. Baltimore & Ohio R. R.	000.	ν,	1030
Hichardon, 1. I min	2126 Wharton st., Philadelphia, Pa.	July	1,	1885
RICHARDSON, HENRY B.	Ch. State Eng. New Orleans, La.	May		1879
RICHARDSON, THOMAS F.	Locating Eng. Manitou and Pikes			
Itionaliboon, Indiana	Peak R. R., Maniton, Colo.	Nov.	4,	1885
RICKETTS, PALMER C.	Wm Howard Hart, Prof. Ra-	Feb.	-1	1886
	tional and Technical Mechanics, A.		,	1887
RICKON, FRED J. H.	Rensselaer Pol. Inst., Troy, N. Y. (M. City Eng., Little Rock, Ark.	Jan.	4,	
· ·		o 2.1.11.	1,	1000
RIFFLE, FRANKLIN	Ch. Eng, Oregon & Washington Territory R. R., Walla Walla, Wash.	Nov.	7.	1882
RINECKER, FRANCIS	Civil Eng. Wuerzburg, Germany.	Aug.		1872
RIVES, ALFRED L.	Gen. Supt. Panama R. R., Panama,			
201120, 12211122 23	U. S Colombia; address: Mills			
	Bldg., New York City.	Sept.	4,	1872
ROBERTS, EVELYN P.	Asst. Eng. Aqueduct Commission,			
	(Box 527.) Sing Sing, N. Y.	May	7,	1884
Roberts, Percival, Jr.	261 South Fourth st., Philadel- A.	May		1876
	phia, Pa. (M.	June	4,	1884
Robinson, Albert A.	Second Vice-Pres, Man. and Ch. Eng. Atchison, Topeka & Santa Fé R.R.	Man	=	1000
Robinson, Albert F.	Topeka, Kansas. (Care E. L. Corthell.) 205 La Salle	May	5,	1880
HOBINSON, HUBERT I.	st., Chicago, Ill.	Nov.	2,	1887
Robinson, George H.	Asst. Gen Man. and Eng. The Mon-			
,	tana Co (Ltd.) Marysville, Mont.	March	7,	1888
ROBINSON, STILLMAN W.	Prof. of Mech Eng. Ohio State			
	University, Columbus Ohio.	Jan.	2,	
ROCKWELL, SAMUEL	Ch. Eng. Eastern Ry., St. Paul, Minn.	Jan.	7,	1880
Rodd, Thomas	Prin. Asst. Eng. Penn. Co., Pitts-			
	burgh, Pa.	Jan.	5,	1878

Name.	Address.	Date of Membership.		
ROGERS, FAIRMAN	(Care Messrs, Dick Bros, & Co.) 147			
	South Fourth st., Philadelphia, Pa.,			
	and Newport, R. I.	May	7,	1873
Rose, Charles C.	Div. Eng. Delaware, Lackawanna &			
	Western R. R., Scranton, Pa.	April	4,	1888
Rosecrans, William S.	Register U. S. Treasury, Washington,			
73	D. C.	July	5,	
Rosewater, Andrew	430 Paxton Block, Omaha, Neb.	Oct.	3,	1883
Ross, James	P. O. Box 788, Sherbrooke, Quebec,			
7) 317	Canada.	Sept.	6,	1882
ROTCH, WILLIAM	Pres. Consolidated Electric Mfg. Co.,	Manak	~	1050
ROTHWELL, RICHARD P.	8 Exchange Place, Boston, Mass. Mining Eng., Editor Engineering and	March	Э,	1873
HOTHWELL, HICHARD 1.	Mining Journal, (P. O. Box 1833.)			
	27 Park Place, New York City.	Jan.	29	1868
Rowe, Samuel M.	Ch. Eng. Western Div. Atlantic &	oun,	₩ 0,	1000
,	Pacific R. R., Albuquerque, N. M.	Sept.	2,	1885
ROWLAND, CHARLES L.	61 Morton st., Brooklyn, N. Y.	Sept.	1,	1886
ROWLAND, THOMAS F.	Pres. Continental Iron Works, P. O.			
	Station G, Brooklyn, N. Y. (Resi-			
	dence, 329 Madison ave., New York			
	City.)	Dec.	4,	1867
ROWLAND, THOMAS F., JR.	Sec. and Treas. The Continental Iron			
	Works, P. O. Station G, Brooklyn,			
D H E	N. Y.	Sept.	1,	1886
RUDLOFF, HENRY F.	(Care Chr. Tams & Co.) Puerto Cab-	T	C	1000
RUGGLES, WILLIAM B.	ello, Venezuela. Fern Bank, Hamilton Co., Ohio.	Jan.		1886
		April	٤,	1886
RUMBLE, WILLIAM	Asst. Eng. Hudson Suspension Bridge & New England R. R., 38 Wall st.,			
	New York City.	Sept.	1	1886
RUNDLETT, LEONARD W.	City Eng. St. Paul, Minn.	Sept.	1, 5,	1883
RUSLING, GEORGE M.	Civil Eng. and Contractor, Hacketts-	ischt.	9,	1000
,	town, N. J.	Nov.	1,	1882
Russell, S. Bent	Asst. Eng. in chg. Water Works	-	,	
	Asst. Eng. in chg. Water Works Extension, 77 E. May st., St. J. Louis Wo	June		1884
	110111111111111111111111111111111111111	June	1,	1887
Russell, Nathaniel E.	580 First ave., Lansingburgh, N. Y.	Oct.	3,	1889
RUTHERFURD, FRANCIS M.	Asst. Eng. Richmond & Danville			
	R. R., Richmond, Va.	Oct.	6,	1886
Cappone France C	(% Eng Challer In W. 1 49 22			
Safford, Edward S.	Ch. Eng. Shelby Iron Works, Shelby,	D	0	1003
Sample, John H.	Ala. Ch. Eng. Louisville, St. Louis & Texas	Dec.	6,	1882
CAMELING OUTH II.	Ry., 251 Fourth st., Louisville, Ky.	Oct.	6	1886
		000.	0,	1000

		Date of		
Name.	Address.		nbers	
Sanderson, J. Gardner	Rondout, N. Y.	July	6,	1881
Saunders, William L.	Secy, and Eng. Ingersoll-Sergeant Rock Drill Co., 10 Park Place, New York City.	Nov.	3.	1886
SAVAGE, ALBERT C.	445 Tenth st., Brooklyn, N. Y.	May		1881
SAWYER, CHARLES H.	Cashier, The Bank of Scottsville, Scottsville, Kans.	June		1886
Schaeffer, John S.	Civil Eng., 191 Littleton ave., Newark, N. J.	June		1886
Schaub, Julius W.	Eng. Detroit Bridge & Iron (J.	Nov.		1884
The state of the s	Works, Detroit, Mich. M.			1886
Scherzer, Albert J.	(Care W. H. Harned.) 206 South Fourth st., Philadelphia, Pa.	Jan.	6,	1886
Scherzer, William	159 Home Insurance Bldg., Chicago, Ill.	Sept.	5,	1888
SCHMIDT, MAX O. E.	(Care Am. Soc C. E.) 127 East	•		
Schneider, Charles C.	Twenty-third st New York City. Ch. Eng. Pencoyd Bridge and Con-	May	ί,	1879
	struction Co., 261 South Fourth st., Philadelphia, Pa.	Feb.	6,	1884
Schuyler, James D.	Ch. Eng. San Diego Land and Town Co., National City, Cal.	Dec.	6,	1882
SCOTT, ADDISON M.	Res. Eng. U. S. Imp. Gt. Kanawha River, Charleston, West Va.	June	2.	1886
SCOTT, ARTHUR H.	Wayne Co. Savings Bank Bldg., Detroit, Mich.	May	,	1883
SCOTT, CHARLES A.	Eng. & Contractor, Quebec, Canada.	Nov.	,	1884
Scovill, E. Tracy	22 Walnut st., Cleveland, O.	Sept.		1876
		ischt.	٠,,	1010
SEAMAN, HENRY B.	Ch. Asst. Eng., Wilson Bros. & Co., 1036 Drexel Bldg., Philadelphia, Pa.	June Dec.	,	1886 1887
Searles, William H.	Civil and Cons. Eng., Wade Building,	July	9	1873
SEARS, ALFRED F.	Cleveland, O. Eng. Metropolitan Ry., Portland, Ore.	June		1869
SEDGWICK, THOMAS S.	Cons. Sanitary Eng., Florence Hotel,	911110	-,	1000
	San Diego, Cal.	July	20,	1870
SELLERS, COLEMAN	Prof. Eng. Practice, Stevens Institute, Hoboken, N. J. Address: 3301	3.5		1050
C*	Baring st., Philadelphia, Pa.	May		1876
SELLERS, WILLIAM	1819 Vine st., Philadelphia, Pa.	May		1876
Sewall, Joseph S.	481 Carroll st., St. Paul, Minn.	July		1875
SEYMOUR, CHARLES	Madisonville, Hopkins Co., Ky.	Sept.	6,	1871
SEYMOUR, HORATIO, JR.	Man. Director Michigan Land and A.	Jan.	3.	1873
	Iron Co. (Limited), Marquette, A. M. Mich.	April	7,	1880

Name.	Address.	Da Mem	te o	
SHAILER, ROBERT A.	(Shailer and Schniglau.) 609 Phœnix			
,	Bldg., Chicago, Ill.	March	3,	1880
Shanks, Thomas P.	Min. Eng. Union Paving Co., 237			
	Jacob st., Louisville, Ky.	May		1888
SHANLY, JAMES M.	40 St. Mark st., Montreal, Canada.	July	6,	1887
SHAW, GRANVILLE W.	U. S. Asst. Eng., P. O. Box 124,	0.4	_	1007
SHEARER, SAMUEL H.	Louisville, Ky. Eng. National Vulcanite Co., Room 7,	Oct.	5,	1887
SHEARER, SAMUEL II.	Ingalls Block, Indianapolis, Ind.	Jan.	5 ,	1887
SHEDD, J. HERBERT	74 Westminster st., Providence, R. I.	Sept.	,	1869
SHEPARD, DAVID C.	St. Paul, Minn.	May	2,	1883
SHERMAN, RICHARD W.	36 Broad st., Utica, N. Y.	Oct.	6,	1887
SHINN, WILLIAM P.	(Director.) Vice-Pres. New York &			
	New England R. R., 36 Wall st.,			
	New York City.	Sept.	15,	1869
SICARD, MIRTILIANO	Ibague, Tolimo, U. S. Colombia.	Jan.	4,	1882
SIMPSON, ALFRED H.	35 Broadway, New York City.	Sept.	7,	1887
SIMPSON, GEORGE F.	(Care Am. Soc. C. E.) 127 East 23d	351	a	1007
SIMPSON, GEORGE H.	st., New York City. City Eng., Terre Haute, Ind.	March Oct.	,	1880
Skilton, George S.				1881
	68 Columbia Heights, Brooklyn, N. Y.	Sept.	١,	1001
SKINNER, FRANK W.	Editorial Staff Engineering and Build- ing Record, 277 Pearl st., New York City.	Sept.	1	1886
SLATAPER, FELICIAN	Ch. Eng. Pennsylvania Co., Pitts-	isept.	1,	1000
,	burgh, Pa.	Sept.	15,	1869
Sloan, Robert I.	Ch. Eng. Manhattan Elevated Ry., 71			
	Broadway, New York City.	Oct.	1.	1884
SMEDLEY, SAMUEL L.	Ch. Eng. and Surveyor, City Hall,			
C 1	Philadelphia, Pa.	Sept.	2,	1874
SMITH, ALBERT M.	Consolidated Gas Co., Eighteenth st. and Tenth ave., New York City.	May	ž	1886
SMITH, B. BURGH	U. S. Asst. Eng. Sixth Light House	May	υ,	1000
DALLI, D. DONOL	District, 5 Southern Wharf, Charles-			
	ton, S. C.	Nov.	7,	1888
SMITH, D. LOWBER	71 West Eighty-third st., New York			
	City.	May	4,	1887
SMITH, FREDERICK H.	Civil and Cons. Engineer and Bridge			
	Builder, 227 East German st,	T3 1	0.1	1050
SMITH, HAMILTON, JR.	Baltimore. Md. 5 Union Court, Old Broad st., London,	Feb.	21,	1872
SMITH, HAMILION, 91.	E. C., England.	Feb.	5	1879
SMITH, ISAAC A.	Ch. Eng. St. Louis Transfer Ry,	2 00.	,	2010
	24 North Third st., St. Louis, Mo.	Oct.	3,	1888
SMITH, ISAAC W.	Supt. City Water Works, Portland,			
	Oregon.	Oct.	1,	1873

Name.	Address.		te of bers	
SMITH, JARED A.	Lient. Col. Corps Engs. U. S. A., Port-			
, ,	land, Me.	May	2,	1883
SMITH, JOSEPH S.	(Care La Montague Clarke & Co.) 44			
	Broadway, New York City.	April	1,	1874
SMITH, LUCIUS A.	Continental Iron Works, Greenpoint,			
	N. Y.	May	-	1873
SMITH, MILLER A.	224 Keep st., Brooklyn, N. Y.	Oct.	6,	1886
SMITH, OBERLIN	Pres. Ferracute Machine Co., Bridge-	C t		7004
N F Common	ton, N. J.	Sept.	э,	1884
Smith, T. Guilford	Chapin Block, (P. O. Drawer 156) Buffalo, N. Y.	Sont	e	1871
SMITH, W. HARRISON	Eng. Carnegie Bros. & Co. (Ltd.), 48	Sept.	0,	1011
SMITH, W. HARRISON	Fifth ave., Pittsburgh, Pa.	July	5	1882
SMITH, WM. SOOY	Maywood, Cook Co., Ill.	Jan.		1872
Snow, J. Parker	Engrs. Office Boston & Maine R. R.		,	
~	Boston, Mass.	June	3,	1885
Somerville, Robert	Asst. Eng. Board Mississippi Levee			
	Com., Greenville, Miss.	June	1,	1887
Sonne, Otto F.	U. S. Asst. Eng., U. S. Engrs. Office,			
	Kansas City, Mo.	Sept.	7,	1887
SOOYSMITH, CHARLES	(Sooysmith & Co., Civil Engs. and			
	Contractors.) 2 Nassau st., New		~	****
	York City.	May	5,	1886
Sorzano, Julio F.	Cons. Civil Eng., 33 Broadway, New	C! L	9	1004
a Desar I	York City.	Sept. Dec.		1884 1884
Sosa, Pedro J.	Panama, U. S. Colombia. Syracuse, N. Y.	Mar.	-	1869
Soule, Howard Spencer, Samuel	(Care Drexel, Morgan & Co.) cor.	Diai.	11,	1000
SPENCER, DAMCEL	Wall and Broad sts., New York City.	Sept.	2.	1885
SPROULE, WILLIAM J.	Prin. Asst. Eng. Harbor Trust, Mon-		_,	
STROUBL, WIBERES	treal, Canada.	Sept.	1.	1886
STAATS, JOHN H.	(R. P. and J. H. Staats, Civil Engrs.	-		
	and Contractors.) 35 Broadway,			
	New York City.	March	ı 5,	1884
Statts, Robert P.	(R. P. and J. H. Staats, Civil J.	Nov.	9	1875
	Engrs. and Contractors.) 557	July	,	1885
	broadway, New York City.	5 ang	-,	1000
STALEY, CADY	Pres. Case School Applied Science,	3.7		1000
G	Cleveland, Ohio.	Mar.	17,	1869
STANTON, ROBERT B.	Civil and Mining Eng., 28 Barelay	Sont	1	1880
STARLING, WILLIAM	Bldg., Denver, Colo. Ch. Eng. Mississippi Levee District,	Sept.	1,	1000
STARLING, WILLIAM	Greenville, Miss.	Sept.	7.	1887
STAUFFER, DAVID McN.	Editor Engineering News, Tribune	oop ti	.,	
District and District and All	Bldg., Room 105, New York City.	Sept.	2,	1874
STEARNS, FREDERIC P.	Ch. Eng. State Board of Health, 13	•		
	Beacon st., Boston, Mass.	Oct.	2,	1878

Name.	Address.	Date of Membership.		
STEARNS, IRVING A.	Man. Coal Companies of Pennsyl-			
,	vania R.R. Co., Wilkesbarre. Pa.	April	2,	1884
STEPHENS, CLINTON F.	1230 Washington ave., St. Louis,			
G 77 G	Mo,	Sept.	5,	1877
STEVENS, FRANK S.	Div. Eng. M. L. Div. Philadelphia & Reading R.R., Reading, Pa.	Oct.	9	1883
Stevens, John F.	3217 Lindley ave, Minneapolis, Minn.	June		1888
	LT	Nov.	- 1	1876
STEVENS, HORACE E.	P. O. Box 2396, St. Paul, Minn. M.	April	- 1	1888
Stewart, John M.	P. O. Box 87, Dobbs Ferry, J.	March	2,	1887
	N. Y. (M.	Jan.	4,	1888
STIXRUD, MARTINIUS	Eng. Constr. Seattle, Lake Shore &	4	^	1000
C-ann Frances II	Eastern Ry., Seattle, Wash.	April	3,	1889
STONE, EDWARD H.	In chg. Construction Section, office Director General of Railways, Simla,			
	India.	Dec.	5	1888
STOREY, WILLIAM B., Jr.	Cor. 4th and Townsend sts., San	2001	٠,	2000
	Francisco, Cal.	Jan.	2,	1889
STOWELL, CHARLES F.	Bridge Eng. N. Y. State Board R. R.			
	Commrs., Albany, N. Y.	April	4,	1888
STRIEDINGER, JULIUS H.	(Care Am. Soc. C. E.) 127 E. 23d st.	~ .	0	4 O W O
Consens Oversyns I	New York City.	Feb.	2,	1876
STROBEL, CHARLES L.	Cons. Eng. Keystone Bridge Co., 205 La Salle st., Chicago, Ill.	Dec.	9	1879
STRONG, CHARLES H.	1357 Wilson ave., Cleveland, Ohio.	Jan.		1873
STUBBS, LINTON W.	Res. Eng Vicksburg, Shreveport	O terre	٠,	2010
,	& Pacific and Alabama & Vicksburg			
	R. Rs., Monroe, Ala.	Oct.	3,	1888
Surtees, Robert	Man. Water Works, Ottawa, Canada.	April	5,	1882
Swan, Charles H.	Civil and Sanitary Eng., 25 Wabon	3.5	4.0	4050
Covered Ervinovivi	st., Boston, Mass.	Mar.		1870
SWEET, ELNATHAN SWEET, WILLIAM A.	13 Tenbroeck st., Albany, N. Y. Pres. Sweet Mfg. Co., Syracuse, N. Y.	Nov. Feb.		1878 1876
SWIFT, ALEXANDER J.	Ch. Eng., N. R. R. Dept. Delaware	reb.	,	1010
· · · · · · · · · · · · · · · · · · ·	and Hudson Canal Co., Albany,			
	N. Y.	Feb.	1,	1888
Symington, William N.	P. O. Box 2011, New York City.	May	4,	1881
Talbot, Arthur N.	Asst. Prof. Eng. and Mathematics,	A	4	1000
TALCOTT, COOK	University Illinois, Champaign, Ill.	April	±,	1888
TALCOTT, COOK	Hudson Suspension Bridge & New England Ry., 38 Wall st., New			
	York City.	April	15.	1868
TALCOTT, E. N. KIRK	Morgan Park, Cook Co., Ill.	Jan.	- 1	1868
TALCOTT, THOMAS M. R.	First Vice-Pres. Richmond & Dan-			
	ville R. R., Richmond, Va.	Sept.	1,	1886-

Name.	Address,	Date of Membership.		
TAYLOR, EDWARD B.	Gen. Supt. North West System,	37022	OCID	
TATLOR, EDWARD D.	Penna, Lines, West of Pittsburgh, Pittsburgh, Pa.	Sept.	3,	1884
TEMPLE, ROBERT H.	Ch. Eng. Tennessee Midland Ry., Cotton Exchange Bldg., Memphis,	3.5	0	100=
THACHER, EDWIN	Tenn. Trustee Decatur Iron Bridge & Cons.	May	6,	1885
	Co., Eng. and Contractor for Bridges, Decatur, Ala.	Feb.	17.	1869
THACKRAY, GEORGE E.	Asst. Eng. N. Y. State Board, J.	Sept.	-	1882
	R.R. Commrs., Albany, N Y. M.	April	7,	1886
Thayer, Russell	Ch. Eng. and Supt. Fairmont Park. Cons. Eng., City Hall (Residence,	Dec.	c	1882
THOMAS, BENJAMIN F.	Chestnut Hill.) Philadelphia, Pa. U. S. Asst. Eng. Louisa, Ky.	April		1887
		21,7111	υ,	1001
Тномая, Jоѕерн R.	Cons. Eng. 138 East Seventy-ninth st., New York City.	Oct.	5,	1881
THOMPSON, WILLIAM G. M.	Res. Eng. Sault. Ste. Marie Canal,	To Day	0	1050
Marana Carrent C	Sault Ste. Marie, Ont., Canada. 832 East 161st st., New York City.	July Feb.		1879 1889
THOMPSON, SAMUEL C.		100.	υ,	1000
THOMSON, (FEORGE H.	Eng. Bridges New York Central & Hudson River R. R., Room 21, Grand Central Station, New York City.	Feb.	2,	1887
Thomson. John,	Mfr. Printing and Embossing Presses, and Water Meters, 11–13 Temple	35 3	0	1005
m T T	Court, New York City.	March	2,	1887
Thorndike, John L.	Lima, Peru. (Care of J. S. Spinney, 66½ Pine st., New York City.)	May	7,	1873
Thurston, Robert H.	Director of Sibley College, Cornell Univ. Ithaca, N. Y.	Dec.	6,	1871
TIDD, MARSHALL M.	Civil Eng., 10 Tremont st., Boston, Mass.	Oct,	2.	1878
TINGLEY, GEORGE C.	21 South Main st., Providence, R. I.	Sept.		1871
TINTORER Y GIBERGA, JOSE	Asalto No. 12, Barcelona, Spain.	May	5.	1880
Titlow, J. Milton	Prin. Asst. Eng. Dept. Public Works,		•	
m . II	City Hall, Philadelphia, Pa.	Aug. Feb.		1879
TODD, FRANK H.	City Eng., St. Cloud, Minn.	reb.	υ,	1889
Tomlinson, Alfred T.	Asst. Eng. Denver and Rio Grande R. R., Denver, Colo.	Sept.		1887
Tompson, George M.	Lock Box 1455, Woburn, Mass.	May	2,	1888
Towne, Henry R.	Cons. Eng. of Sanitary Drainage, 25 Chambers st., New York City. President Yale & Towne Mfg. Co.,	Feb.	19,	1868
,	Stamford, Conn.	Oct.	3,	1883
Truesdell, Charles	Supt. Homer & Cortland Gas Light Co., Cortland, N. Y.	Sept.	15,	1869

Name.	Address.	Date of Membership.		
Tubbs, J. Nelson	Ch. Eng. Water Works, Rochester,	242.111	,016.	4.11/-
TODDA, O. ATRABAM	N. Y.	Sept	3,	1884
Tullock, Alonzo J.	Propr. Missouri Valley Bridge and Iron Works, Leavenworth, Kansas.	June	6,	1883
Unthank, Achilles W.	Ch. Eng. San Joaquin Land & Water Co., Knight's Ferry, Cal.	July	2,	1873
VAN BROCKLIN, MARTIN	Elizabeth, Lincoln Co., Neb.	Jan.	7,	1880
VAN BUREN, JOHN D.	Newburgh, N. Y.	May	20,	1868
VAN BUREN, ROBERT	Ch. Eng. Dept. City Works, 153			
VANCE, HART	Remsen st., Brooklyn, N. Y. Civil Eng., Middleport, Meigs Co.,	June	17,	1868
TANCE, HARI	Ohio.	July	7,	1880
VANDERPOOL, EUGENE	Pres. and Eng. Newark Gas Light Co.	·		
V. v. H v. C	Newark, N. J.	Sept.	2,	1874
VAN HORNE, JOHN G.	15 Cortlandt st., Room 78, New York City.	Feb.	4	1880
VAN SANT, ROBERT L.	Ch. Eng. Indianapolis, Decatur &	2 0.7.	-,	1000
	Western Ry., Indianapolis, Ind.	Sept.	3,	1880
VAN WINKLE, EDGAR B.	117 East Seventieth st., New York	30	2	1000
Varona, Ignacio M, de	City. 163 East Sixtieth st., New York City.	Dec. April	2. 7,	1868 1886
VEAZIE, JOSEPH	U. S. Asst. Eng. (P. O. Box 209,)	Apm	٠,	1000
	Boston, Mass.	May	3.	1876
VOORHEES, THEODORE	Asst. Gen. Supt. New York Central			
	& Hudson River R. R., Grand Central Station, New York City,	May	в	1885
	transtation, New York Oity,	may	υ,	1000
WADDELL, JOHN A. L.	Cons. Bridge Eng., Keith & Perry Bldg., cor. 9th and Walnut sts.,			
	Kansas City, Mo.	Oct.	5,	1881
Wagner, Samuel Tobias	Supt. Shops, Phœnix Iron Co., Phœ-	71.1	0	*00F
WAITE, CHRISTOPHER C.	nixville, Pa. Vice-Pres. Cincinnati, Hamilton &	Feb.	2,	1887
WAITE, CHRISTOPHER C.	Dayton R. R., Cincinnati, O.	March	3,	1880
Walker, J. S.	Box 16, Birmingham, Ala	Jan.	5,	1881
Walker, Jesse W.	Proprietor Shiffler Bridge Works.		_	
Warren Warren W	Pittsburgh, Pa. Gen. Man. Tucson, Globe & Northern	May	7,	1884
WALKER, WILLIAM W.	R. R., 11 Wall st., New York City.	Oct.	6,	1880
Wallace, John F.	(Care E. L. Corthell.) 205 La Salle st.,		,	
	Chicago, Ill.	June		1886
WARD, CHARLES D.	Indurated Fibre Co., Oswego, N. Y.	Mar.	3,	1869
WARD, JOHN F.	291 Montgomery st., Jersey City, N. J.	Oct.	6.	1886
	**	000	,	

Name.	Address.	Da Mem		
Ward, Lebbeus B.	Taylor's Hotel, Jersey City, N. J.	Mar.	16,	1870
Wardlaw, James R.	25 Chambers st., Room 25, New			
	York City.	Mar.	3,	1886
Ware, R. Willard	Plainfield, N. J.	April	1,	1874
Washburn, Frank S.	143 Washburn ave., Chicago, Ill.	Nov.	7,	1888
Watkins, Frederick W.	118 East 115th st. New York City.	Oct.	3,	1883
Watson, William P.	(Care Oregon Ry. and Navigation Co.)		4	1005
*** II D '	Portland, Ore.	June	,	1887
WEEKS, HARVEY R.	North Vernon, Ind.	March	Э,	1873
Wegmann, Edward, Jr.	Div. Eng. New Croton Aqueduct, 324 St. Nicholas ave., New York City.	March	7.	1888
Weir, Frederic C.	Pres. The Weir Frog Co., Cincinnati, Ohio.			
Warren Gray Paris	Gen. Man. Wisconsin Bridge and	Aug.	1,	1872.
Weinhagen, Fred.	Iron Works, Wauwatosa, Milwau-			
	kee Co. Wis.	July	4	1888
Weiskopf, Samuel C.	Room 314, Penn Building, Pitts- (J.	May		1884
WEISHOLF, DAMOLIS C.	burgh, Pa. (M.		,	1889
Weld, F. Floyd	City Eng., Waterbury, Conn.	Sept.		1884
Wellington, Arthur M.	Editor Engineering News, Tribune	~opt.	٠,	1001
Transaction, and an area	Bldg., Room 105, New York City.	May	4,	1881
WELLMAN, DAVID W.	Asst. Eng. Mo. River Comm., 1415			
777 O O	Washington ave., St. Louis, Mo.	Oct.	5,	1870
WENTWORTH, CHARLES C.	Eng. and Man. American Bridge and Iron Co., Roanoke, Va.	April	4	1888
WENTWORTH, WILLIAM H.	Ch. Eng., Monterey and Mexican	zipin	1,	1000
TTELL TO CAULANT TO AND	Gulf Ry., Monterey, Mexico.	Jan.	2,	1889
WESTON, EDMUND B	Asst. City Engineer in charge of Water Dept. (Lock Box 1071), Pro-			
	vidence, R. I.	Dec.	6,	1882.
WETHERILL, WILLIAM C.	Gen. Man. Empire Zinc Co., Joplin, Mo.	There	1	1000
WHEELER, EBENEZER S.	Asst. U. S. Eng., Gen. Supt. St.	Dec.	1,	1886
WHEELER, EBENEZER 13.	Mary's Falls Canal, Sault Ste.			
	Marie, Mich.	Nov.	7	1883
WHEELER, LEVI L.	Lock Box 132, Chicago, Ill.	June	- 1	1884
WHEELER, ORLANDO B.	U. S. Asst. Eng., 1415 Washington	otthe	1,	1001
William, Olimico D.	ave., St. Louis, Mo.	Nov.	2,	1887
Wheeler, Schuyler S.	Electrical Expert Board Elec-			
	trical Control, 1268 Broadway;	Nr 1.	0	1005
	Pres. and Man. Crocker-Whee-			
	ler Elec. Motor Co., 322 Seventin	Feb.	0,	1889
WHINERY, SAMUEL	ave., New York City. Gen. Man. Warren-Scharf Asphalt			
WHINERI, DAMUELI	Paving Co., 23 Blymyer Bldg.	April,	1,	1874
	Cincinnati, Ohio.	May	4,	1881
	·			

Name	Address.	Date Membe	of ersl	nip,
Whistler, Thomas D.	640 Madison ave., New York J. City.	March May		1884 1888
WHITCOMB, HENRY D.	Cons. Eng. Chesapeake & Ohio Ry., Richmond, Va.	Feb. 2	1,	1872
WHITE, GEORGE H.	Prof. Civil Eng., Worcester Pol. Inst., P. O. Box 976, Worcester, Mass.	May	2,	1883
WHITE, W. HOWARD	74 Wall st., New York City.	March	5,	1873
WHITELAW, JOHN	Eng. and Supt. Water Works, Cleveland, O.	Feb.	5,	1873
WHITFORD, OSCAR F.	Casilla 34 D, Santiago, Chili.	Dec.	6,	1871
WHITLOCK, FRANK W.	Asst. City Eng. (P. O. Box 715.) § J.	Oct.	4,	1876
W	Waterbury, Conn. M.	April	1,	1885
WHITMAN, THOMAS J.	417 Olive st., Room 25, St. Louis, Mo.	Jan. 2	9.	1868
W	(.7		,	1876
WHITNEY, FRANK O.	City Hall, Boston, Mass. M.	Jan.	5,	1887
WHITNEY, JOSEPH	Cambridgeport, Mass.		0,	1872
WHITTEMORE, DON J.	(Past President.) Ch. Eng. Chicago, Milwaukee & St. Paul Ry., Mil-			
	waukee, Wis.	July 1	0,	1872
WHITTEN, NATHAN H.	Eng. Holyoke Machine Co., Holyoke, Mass.	Jan	7	1876
WIGHTMAN, WILLARD H.	Ashland, Oregon.			1888
WILDER, FRANCIS M.	Asst. to Pres. U. S. Rolling Stock Co.,			
	Hegewisch, Ill.	Jan.	,	1881
WILEY, WILLIAM H.	15 Astor Place, New York City.	Feb. 1	.7,	1869
WILLIAMS, EDWARD H.	Baldwin Locomotive Works, Philadelphia, Pa.	Sept.	5	1883
WILLIAMSON, F. STUART	Eng. Wallis Iron Works, Jersey City,	•	ĺ	
Water Carry Wat Carry Comme	N. J.	_		1887
WILLIAMSON, WM. GARNETT WILSON, ARTHUR OWEN	City Eng., Montgomery, Ala. Sec. Treas. and Gen. Man. The Huntsville Belt Line and Monte	April	τ,	1883
	Sano Ry., Huntsville, Ala.	March	7.	1888
WILLSON, ELLIOTT H.	(Care Willson & Gillie.) Butte, Mont.			1888
WILSON, HENRY W.	Civil Eng., Drexel Bldg., Philadel-	et i	0	1050
Wilson, John A.	phia, Pa. Civil Eng., Drexel Bldg., Philadel-	•	ĺ	1876
Wilson, Joseph M.	phia, Pa. Civil Eng. and Architect, Drexel			1876
WIMMER, SEBASTIEN	Bldg., Philadelphia, Pa. Civil Eng., St. Mary's, Elk Co., Pa.	April March	,	1873 1881
WISNER, GEORGE Y.	Res. Eng., Brazos River Channel &	Transfer of	-,	1001
WOLCOTT, CHRISTOPHER C.	Dock Co., Velasco, Texas. Civil Eng. U. S. N., U. S. Navy Yard,	April	5,	1876
Older, Christoffer C.	Mare Island, Cal.	March	5 ,	1884

Name.	Address.	Date of Membership.		
Wood, Joseph	Gen. Supt. Trans. Penna. lines west			
	of Pittsburgh, Pittsburgh, Pa.	April	1,	1874
WOODBURY, CHARLES J. H.	Second Vice-Pres. Mfrs. Mutual Fire			
	Ins. Co., 31 Milk st , Boston, Mass.	Dec.	3,	1884
WORTHEN, WILLIAM E.	(Past President.) 63 Bleecker st.,			
	New York City.	Dec.	4,	1867
WRIGHT, AUGUSTINE W.	504 Phœnix Bldg., Chicago, Ill.	May	5,	1886
Wright, Edward T.	Abstract Bldg., Los Angeles, Cal.	Feb.	3,	1886
Wright, George F.	City Surveyor, Santa Barbara, Cal.	Jan	4,	1888
Wrotnowski, Arthur F.	Eng. in chg. Harbor Works, Tampico,			
	Mexico.	July	12,	1877
Wurtele, Arthur S. C.	Deputy State Eng. and Surveyor,			
	Albany, N. Y.	March	5,	1873
YEATMAN, CHARLES P.	Coalburg, Ala.	Feb.	2,	1887
Yonge, Samuel H.	U. S. Asst. Eng., U. S. Engineer's			
	Office, Kansas City, Mo.	May	õ,	1880
Young, John	Geneseo, N. Y.	Mar.	7,	1888

MEMBERS, 979.

ASSOCIATES.

[Assoc. Am. Soc. C. E.]

			
Name.	Address.	Date of Membership.	
ABBOTT, WILLIAM L.	Carnegie, Phipps & Co., Pittsburgh, Pa.	May	1, 1889
Andrews, Edward R.	Man. for Eastern Mass. of Equitable Life Assurance Society, Equitable	v	,
	Bldg., Boston, Mass.	June	5, 1878
BARNES, WILLIAM H.	Pres. and Receiver Allegheny Valley R. R., 234 South Fourth st., Phila- delphia, Pa.	Sept.	2, 1885
Beardsley, Arthur	I. V. Williamson Prof. Eng. and Director of the Workshops, Swarth-	1	,
	more College, Swarthmore, Pa.	Sept.	1, 1875
Belcher, George C. W.	2646 Washington ave., St. Louis, Mo.	May	5, 1880
Berg, Louis De Coppet	111 Broadway, New York City.	June	6, 1888

ASSOCIATES.

Name.	Address.	Da Memb	te o	
BOGART, SAMUEL S.	Supt. Telegraphs and Signals West Shore R. R, foot of West Forty- second st., New York City. (Resi-			
BRADBURY, HENRY R.	dence, Schraalenburgh, N. J.) (Care Warren-Scharf Asphalt Paving	April	7,	1886
	Co.) 81 Fulton St., New York City.	July	,	1881
Brown, Jacob B. Burrows, George L.	P. O. Box 501, Newport, R. I. Saginaw, Mich.	Sept. Feb.		1871 1886
DURROWS, GEORGE L.	baginaw, micu.	reo.	υ,	1000
CARD. JOSEPH P.	Pres. Chicago Tie Preserving Co., Fifteenth and Clark sts., Chicago, Ill.	Sept.	5.	1883
Compton, Alfred G.	Prof. of Applied Mathematics, College		-,	
Crafts, George H.	City of New York, New York City. Civil Eng. and Contractor, Box 245,	Sept.	5,	1877
	Atlanta, Ga.	April	4,	1888
Davis, Emory C.	City Eng., Northampton, Mass.	Dec.	4.	1872
DAVIS, J. WOODBRIDGE	32 East Forty-fifth st., New York City.	June	3,	1885
Du Barry, Edmund L.	Supt. Eastern Div. Norfolk & Western R. R., Crewe, Nottoway Co., Va.	Jan.	6,	1875
FLETCHER, ROBERT	Prof. of Civil Eng., Thayer School of Civil Engineering, Dartmouth Col-	3.7	4	1084
Frost, George H.	lege, Hanover, Grafton Co., N. H. Business Man. Engineering News, Tribune Bldg., New York City.	Nov. Jan.	,	1874 1882
	Thome bug., New Tork City.	9411.	т,	1004
GIBSON, WILLIAM, JR.	Publisher, The Engineering and Build- ing Record, 277 Pearl st., (P. O. Box 3037) New York City.	Sept.	5,	1888
HALL, CLAYTON C.	Cons. Actuary, Actuary to Insurance Dept. of State of Maryland, 10 South	35. 1		15.04
Hammond, Henry B.	st., Baltimore, Md. Pres. and Receiver Indianapolis Decatur & Western Ry., Pres. Boston & New York Air Line R. R., 2 Wall	March	3,	1586
	st., New York City.	July	,	1880
HANDY, FRANK W.	Avondale, Cincinnati, Ohio.	Oct. June		1886 1884
Hardwicke, Alan H. G. Harris, Charles M.	Buffalo, N. Y. White Plains, N. Y.	Jan.	,	1873
Hendrie, John S.	Railway Contractor, Hamilton, Ontario, Canada.	Sept.	,	1881
LEWIS, JAMES F.	Rand Drill Co., 23 Park Place, New York City.	Feb.	6,	1889

Name.	Address.	Da Mem1	ite o	f hip.
Lawson, Leonidas M.	102 Broadway, New York City.	Dec.	3,	1879
Lockwood, John	Gas and Hydr. Eng., 52 Broadway,			
	New York City.	April	5,	1882
McKinney, Robert C.	Secy. and Treas. Niles Tool Works, and The Gordon Steam Pump Co., Hamilton, Ohio.	Oct.	6,	1886
Mordecai, Gratz	Office Gen. Supt. Trans. Penn. R. R., Philadelphia, Pa.	Oct.	·	1887
Moxham, Arthur J.	Pres. Johnson Steel Street Rail Co., Johnstown, Pa.	Nov.	•	1887
NICOL, THOMAS W.	Ch. Eng. Mobile, Jackson & Kansas City R. R., 36 St. Francis st., Mobile, Ala.	June	7,	1882
Parsons, George W.	Supt. Frog Switch & Signal Dept., Pennsylvania Steel Co., Steelton, Pa.	Sept.	3,	1884
PHILLIPS, HENRY A.	Div. Supt. Fitchburg R.R., Worcester, Mass.	April	7.	1886
Pratt, Robert J.	Electrical Eng., (Residence, Greenbush, N. Y.)	May	·	1887
PUTNAM, JOSEPH W.	34 St. Charles st. (Drawer 253) New Orleans, La.	March		
REEVES, PAUL S.	760 South Broad st., Philadelphia, Pa.	Sept.	6,	1882
RICHARDS, JOSEPH R.	44 Court st., Boston, Mass.	Feb.	4,	1880
ROBERTS, WILLIAM	Waltham, Mass.	June	4,	1884
Speed, James B.	Pres. Western Cement Co., Louisville, Ky.	May	2,	1888
STONE, WATERMAN	Gen. Man. Inter-State Consolidated Rapid Transit Ry., Kansas City, Kans.	Dec.	1	1886
SWAIN, GEORGE F.	Prof. Civil Eng., Massachusetts Insti-	200.	٠,	1000
	tute of Technology, Boston, Mass.	Sept.	5,	1883
Tomkins, Calvin	150 Broadway, New York City.	Jan.	6.	1886
TRAUTWINE, JOHN C., JR.	3301 Haverford st., Philadelphia, Pa.	Dec.	- 1	1888
Warder, John H. Watkins, J. Elfreth	Wilmington, Del. Eng. Property and Curator Section	March	7,	1888
	Transportation and Engineering, U. S. National Museum, Washing-			
	ton, D. C.	Jan.	2,	1889

Name.	Address.	Date of Membership.
WATSON, WILLIAM	Secy. Am. Academy of Arts and Sciences; address: 107 Marlborough st., Boston, Mass.	March 1, 1882
WHEATON, EDWARD WOODWARD, C. M.	Boston, Mass. Thayer Prof. of Applied Mechanics and Higher Mathematics, Dean of Polytechnic School, Washington	March 3, 1880
	Univ., St. Louis, Mo.	June 2, 1886
Young, Frederick S.	Asst. to Pres. of, and also Secy. Gilbert Car Mfg. Co., Troy Club, Troy, N.Y. ASSOCIATES, 50.	April 7, 1886

JUNIORS.

[Jun. Am. Soc. C. E.]

Name.	Address.	Da Memi	te o	
ABBOTT, ARTHUR V.	Closter, N. J.	Jan.	5,	1881
ABBOTT, EDWARD L.	(Care Sooysmith & Co.) 2 Nassau st., New York City.	Sept.	1	1886
Amara Terrana T	· ·	Jan.	,	
Adams, Julius L.	155 Congress st., Brooklyn, N. Y.	Jan.	4,	1888
ALLEN, THOMAS W.	161 East Thirty-fourth st., New York	-	_	1000
	City.	Dec.	5,	1888
Baier, Julius	Asst. Eng. Merchants Terminal Ry.,			
	52 Laclede Bldg., St. Louis, Mo.	Sept.	7,	1887
Bainbridge, Francis H.	Asst. Eng. Edge Moor Bridge Works,	_		
	Wilmington, Del.	Jan.	4,	1888
Baldwin, Ward	Asst. Eng. in charge of office Cincinnati, New Orleans & Texas Pacific Ry., 35 West Fourth st., Cin-			
	cinnati, Ohio.	March	2,	1881
BARNEY, S. E., JR.	Instructor Civil Eng., Sheffield Scien-			
	tific School, New Haven, Conn.	June	2,	1886
Bell, Gilbert J.	Sibley, Mo.	Sept.	7,	1887
Bensel, John A.	Asst. Supervisor, Div. A., Penn. R.R.,			
	Jersey City, N. J.	Sept.	2,	1885
BISSELL, FRANK E.	Ch. Eng. and Act. Supt. Denver, Texas & Ft. Worth R. R., Room 75,			
	Railroad Bldg., Denver, Colo.	April	2,	1884
Blanc, Frederick N.	53 Cedar st., New York City.	July	5,	1882

Name.	Address.	Date of Membership.		
Bogart, James P.	Eng. Conn. Shell Fishery Commis-	,		
	sion, New Haven, Conn.	Jan.	4,	1882
Boggs, Edward M.	Civil Eng., P. O. Box 406, San Ber-			
	nardino, Cal.	.Oet.	6,	1886
Bonnett, Charles P.	Asst. Eng. New Croton Aqueduct,	т	0	1000
BOOKER, BERNARD F.	Dobbs Ferry, N. Y. Asst. Eng. Main. Way, Gulf, Colorado	June	2,	1886
DOORER, DERNARD I.	and Santa Fé Ry., Galveston, Texas.	Oet.	7.	1885
BOOTH, WILLIAM F.	Poughkeepsie, N. Y.	Jan.		1885
BOWDITCH, ERNEST W.	60 Devonshire st., Boston, Mass.	Feb.	3,	1875
Brereton, Thomas J.	Supervisor Tyrone Div. Pennsylvania		,	
	R. R., Osceola, Clearfield Co., Pa.	Oct.	7,	1885
Brown, C. Newton	Assoc. Prof. Civil Eng. Ohio State			
	University, Columbus, Ohio.	Nov.	,	1886
Brown, William C.	86 Liberty st., New York City.	Sept.	- 1	1886
BURDETT, CHARLES L.	21 Trust Co. Block, Hartford, Conn.	Jan.	6,	1875
Burnham, George, Jr.	Sec. and Treas. Barr Pumping Engine			
	Co., 500 North Broad st., Phila-	т.	0	1055
Butts, Edward	delphia, Pa. P. O. Box L., Kansas City, Mo.	Jan. April	6,	1875 1881
	· ·	Арти	υ,	1001
Butts, Elijah P.	Asst. Eng. Snake River Bridge, Riparia, Wash.	Nov.	3	1886
	211711111, 111021	1.0	٠,	1000
CARLL, DAVID S.	1010 Grove st., Kansas City, Mo.	March	7,	1888
CARRÈRE, J. MAXWELL	(Care Carrère and Haas Iron Works.)			
	36 Park Place, New York City.	Oet.	7,	1885
CARROLL, EUGENE	Res. Eng. Light, Heat and Water Co.,			
0 7 7	Jackson, Miss.	Jan.	4,	1888
Chapin, Loomis E.	Assoc. Engineer J. D. Cook, Rooms 47 and 48, Produce Exchange,			
	Toledo, Ohio.	Dec.	3.	1884
CLARKE, St. JOHN	(Care Hoffman and Bates.) Portland,	2000	٠,	2002
,	Ore.	Sept.	õ,	1888
CLARKE, WILLIAM G.	First Asst. City Eng., City Engrs.			
	office, Toledo, Ohio.	April	4,	1888
CLARKSON, ROBERT C.	(Care Wilson Bros. & Co.) Drexel	Lon	_	1007
CONNETT, ALBEBT N.	Bldg., Philadelphia, Pa. Room 35, Security Bldg., Kansas	Jan.	ο,	1887
CONNETT, ALBEBT IV.	City, Mo.	June	6.	1883
Conover, Allan D.	Prof. of Civ. Eng., University of Wis-			
	consin, Madison, Wis.	June	4,	1884
CRANDALL, CHARLES L.	Asst. Prof. of Civil Eng., Cornell Uni-			
0 11 7	versity, Ithaca, N. Y.	June	7.	1876
CRANE, WILL E.	Inspector Lassig Bridge and Iron Works Bittshamed Ba	Morr	1	1000
	Works, Pittsburgh, Pa.	May	1,	1889

Name.	Address.	Da Mem	te of	
DAVIS, JOSEPH B.	Asst. Prof. Civil Eng., University of			
	Michigan, Ann Arbor, Mich.	April	1,	1874
DAY, G. FREDERICK P.	Box, 916, Pasadena, Cal.	Nov.	3,	1880
Douglas, Benj.	Eng. Bridges Michigan Central R. R., Detroit, Mich.	June	1,	1887
Downes, Stancliff B.	Asst. Eng. Dept. Public Parks, 1071 Madison ave., New York City.	April	7,	1886
DuBois, A. Jay	Prof. of Civil Eng., Sheffield Scientific School of Yale College, New Haven, Conn.	July	77	1875
Drivers Francy In	Engrs. Office, Cairo Bridge, Cairo, Ill.	Feb.	,	1887
DURYEA, EDWIN, JR.	Engls. Onice, Carlo Dridge, Carlo, III.	ren.	٠,	1001
Edes, William C.	Asst. Eng. Southern Pacific Co., San Francisco, Cal.	Sept.	1.	1886
Ellsworth, Alfred B.	(Care Pittsburg Testing Laboratory,) Pittsburgh, Pa.	May	,	1889
Erlandsen, Oscar	Pennsylvania, Poughkeepsie and Bos-	May	1,	1000
Zitiliti Mility Obolit	ton R. R., Portland, Pa.	May	1,	1889
EWING, WILLIAM B.	Asst. Eng. Chicago & North Western		ĺ	
	Ry., 4136 Ellis ave., Chicago, Ill.	April	3,	1889
Fargusson, Mark	257 Jefferson ave., Brooklyn, N. Y.	Dec.	5,	1888
FARLEY, GEORGE M.	Eng. Maintenance Way, New York &	Amaril	e	1887
FARLEY, JOHN M.	New England R. R., Boston, Mass. Fort Plain, N. Y.	April Dec.		1888
FERGUSON, WILLIAM L.	1632 N. 15th st., Philadelphia, Pa.	May	,	1889
FERRER, CARLOS F.	39 Broad st., New York City.	Sept.		1885
FIELD, WILLIAM P.	Civil Eng., 976 Broad st., Newark,	. 1	,	
,	N. J., European address: Care Brown, Shipley & Co., London.	Dec.	7	1887
FISHER, ELSTNER	Asst. Eng. Michigan Central R. R.,	Dec.	٠,	1001
Tioner, Liminer	Detroit, Mich.	April	3	1889
FRENCH, JAMES B.	626 North 40th st., Philadelphia, Pa.	Feb.		1889
FUERTES, JAMES H.	520 River st., Wichita, Kans.	May		1888
FULLER, WILLIAM B.	City Eng., City Hall, Duluth, Minn.	June	3,	1885
GAHAGAN, WALTER H.	Asst. Eng. St. Louis Merchants Bridge Co., 64 Laclede Bldg., St. Louis, Mo.	Sept.	õ,	1888
GAY, MARTIN	Asst. Eng. Dept. Public Works, City of New York, West New Brighton,			
~	Richmond Co., N. Y.	June	-	1884
Goldsmith, Nathaniel O. Gosling, Edgar B.	The Weir Frog Co., Cincinnati, Ohio. (Care E. Coignet.) 98 rue Demours,	June	2,	1886
,	Paris, France.	May	4,	1887
GRAY, WILLIAM	Tarrytown, N. Y.	May	2,	1888
GRIFFITH, JOHN E.	Res. Eng. Canadian Pacific Ry.,			
	Donald, B. C.	April	3,	1889

JUNIORS.

Name.	Address.	Date of Membership.		
HAINES, CASPAR W.	Cheltenham, Pa.	Feb.		1876
HALE, RICHARD A.	Essex Company, Lawrence, Mass.	Feb.		1884
HASBROUCK, CHARLES A.	Asst. Eng. Chicago Forge and Bolt	100.	0,	1001
TROBROCCI, CHARLES 11.	Co., Chicago, Ill.	March	7.	1887
HAWKS, ARCHIE McL.	(Land and Hawks, Hydr. Engrs.)		-,	
The state of the s	23 Essex Bldg., Denver, Colo.	Nov.	2,	1887
HAYNES, GIDEON F.	10 Tremont st., Boston, Mass.	April		1887
HILDRETH, RUSSELL W.	(Hildreth and Nettleton.) 10 Cedar	1		
,	st., New York City.	Jan.	4,	1888
Hodge, Henry W.	The Phœnix Bridge Co., Phœnixville,			
	Pa.	Jan.	5,	1887
Holbrook, Francis N.	Supt. Corralitos Mining Co., Corra-			
	litos, Mexico.	March	2,	1881
HOPPER, JOHN J.	163 West One Hundred and Twenty-			
	second st., New York City.	May	5,	1886
Horton, Sandford	(Care Y. N. & S. W. Ry.) Yankton,			
	South Dak.	Feb.	7,	1877
Howe, Horace J.	(Care New York, Lake Erie & Western			
	R. R.) Susquehanna, Pa	May	2,	1888
Illsley, William A.	Tahlequah, Indian Territory.	Feb.	3,	1875
Johnson, Sinclair J.	Ch. Inspecting Eng. Kings Co. Ele-			
, , , , , , , , , , , , , , , , , , , ,	vated R. R., Phœnixville, Pa.	Jan.	7,	1885
Just, George A.	Eng. Jackson Iron Works, 315 East			
·	28th st., New York City.	Sept.	3,	1884
		_		
KASTL, ALEXANDER E.	Asst. Eng. The Brazos River Dock			
,	and Channel Co., Velasco, Brazoria			
	Co., Texas.	Jan.	4,	1888
Kellogg, Norman B.	Div. Roadmaster Southern Pacific Co.,			
	West Oakland, Cal.	Feb.	6,	1878
KELSEY, CLIFFORD S.	82 Army Bldg., New York City.	April	3,	1889
KIMBALL, GEORGE A.	Civil Eng., 194 Washington st.,			
	Boston, Mass.	May	12,	1875
Kobayashi, Kayajiro	San. Eng. to Sanitary Bureau, Home			
	Dept., Tokio, Japan.	Feb.	1,	1888
Kondo, Toragoro	(Care Engineering College, Imperial			
	University.) Tokio, Japan.	Oct.	3,	1888
Lant, Frank P.	243 West 133d st., New York City.	Oct.	3,	1888
LAWLOR, FRANK D. H.	Eng. Iowa Lines, Chicago Burlington	0	0	1000
T (1)	& Quincy R. R., Burlington, Iowa.	Oct.	,	1886
LELAND, GEORGE H.	74 Westminster st., Providence, R. I.	May	2,	1887
Lydon, William A.	Asst Eng. Chicago Lake Tunnel, foot	Ton	4	1000
	Peck Court, Chicago, Ill.	Jan.	4,	1888

Name.	Address.	Da Mem	ite o bers	
MACKENZIE, WILLIAM B.	Asst. Eng. Intercolonial Ry., Monc-			
	ton, New Brunswick, Canada.	June	7,	1882
Magovern, Edward E.	Cons. Eng., 22 Cortlandt st., New	T	_	1004
Marvin, Charles E.	York City. Roadmaster Georgia Central R. R.,	Jan.	2,	1884
MARVIN, CHARLES II.	Savannah, Ga.	July	1.	1885
MATLACK, CHARLES P.	(Care A. L. Bowers, Supt. Bridges &		-,	2000
	Bldgs, M. P. Ry.) Palestine, Texas.	Oct.	7,	1885
McCormick, George K.	Asst. Eng. Charleston, Cincinnati &			
M.C. W.	Chicago Ry., Johnson City, Tenn.	Feb.	6,	1889
McCulloh, Walter	Asst. Eng. Sodom Dam, Brewster, N. Y.	July	1	1888
MILLARD, CURTISS	(Care D. R. Paige & Co.) Brewster,	9 (11)	τ,	1000
,	N. Y.	April	3,	1889
MILLS, CHARLES M.	Asst. Eng. The Phœnix Bridge Co.,			
	Phoenixville, Pa.	June		1886
MITCHELL, EDWIN	Hagerstown, Md.	Sept.	7,	1887
Modjeski, Ralph	(Care Geo. S. Morison.) 205 La Salle st., Chicago, Ill.	Dec.	1	1886
Mosscrop, Alfred M.	Asst. Eng. Rochester Bridge & Iron	Dec.	1,	1000
,	Works, Rochester, N. Y.	May	4,	1887
MOULTHROP, GEORGE E.	(Ray & Moulthrop.) Butte, Mont.	Feb.	1,	1888
Myers, Edmund T. D., Jr.	Asst. to Pres. Richmond Locomotive		0	1000
	& Machine Works, Richmond, Va.	May	2,	1888
NORRIS, ROBERT VAN A.	Asst. Eng. Penn. R. R. Anthracite			
	Coal Cos., P. O. Box 726, Wilkes-			
	Barre, Pa.	Dec.	,	1887
Noyes, Ellis B.	Asst. Eng. in ehg., Fort Edward, N. Y.	July	7,	1880
A 7				
OSTRANDER, JOHN E.	(Care Div. Eng. N. Y. State Canals.) Albany, N. Y.	May	•)	1888
	Aimily, A. I.	Tirdi	-,	1000
PENNEY, WILLIAM W.	First Asst. Eng. in ehg. Distribution			
	System, St. Louis Water Works, St.			
D	Louis, Mo.	April	- /	1888
Pierson, Stephen C. Polledo, Ysidoro	Civil Eng., Meriden, Conn. Eng. in chg. Main. of Way and Strue-	Nov.	4,	1874
TOLDERO, ISIDORO	tures, Cardenas & Jucaro R. R.,			
	Cardenas, Cuba.	Jan.	2,	1889
PORTER, ALBERT H.	Transitman, New Croton Aqueduct,			
To t	Brewster, N. Y.	July	4,	1888
POTTER, ALEXANDER	Lehigh University, South Bethlehem, Pa.	Lon	4	1900
	1 64,	Jan.	Ψ,	1888

Name.	Address.	Mem	ate o bers	
Powers, Joseph A.	Lansingburgh, N. Y.	April	2,	1884
Pratt, Mason D.	(Tschirgi and Pratt, Civil & San.			
70 M	Engrs.) Dubuque, Iowa,	Sept.	5,	1888
PURDY, CORYDON T.	(Danforth, Wade & Purdy, Civil & Mech. Engrs.) 168 Washington st.,			
	Room 9, Chicago, Ill.	Feb.	2	1887
	.,, ,		-,	2007
RAASLOFF, HAROLD E. DE	(Care Frazar & Co.) Yokohama, Japan.	Dec.	3,	1884
REUSCHEL, WILLIAM	Eng. Cleveland, Columbus, Cincin-			
	nati & Indianapolis, and Indian-			
	apolis & St. Louis Rys., Cleveland. Ohio.	Turns	a	1000
RICKER, GEORGE A.	Room 82, White Bldg., Buffalo, N. Y.	June April		1880 1886
RIDGWAY, ROBELT	Asst. Eng. Aqueduct Commission,	21/2111	1,	1000
	Box 495, Sing Sing, N. Y.	Feb.	1,	1888
Rohnert, Benno	U. S. Engrs. Office, Sault Ste. Marie,			
	Mich.	April	3,	1889
Rosenweig, Alfred	Ch. Eng. "La Mexicana" L. & M. Co., Dept. Lower California, Mulegé,			
	Baja California, Mexico.	June	7	1882
ROWLAND, CHARLES B.	Continental Iron Works, Greenpoint,	3 1123	٠,	1002
,	N. Y.	May	2,	1888
SANFORD, DAVID C.	Saugatuck, Conn.	May	- 1	1885
SHALER, IRA A.	East View, Westchester Co., N. Y.	July	4,	1888
SHEPARD, WILLIAM T.	Eng. and Contractor, Box 253. New Haven, Conn.	April	7	1886
Sikes, George R.	Civil Eng. 539 Plymouth ave., Buffalo,		٠,	1000
	N. Y.	Sept.	7,	1887
SMITH, EUGENE R.	Civil Eng., Islip. Suffolk Co., N. Y.	May	2,	1888
SMITH, MAXWELL	(Care Keep Mfg. Co.) 809 Broadway,	es .		460=
STAIR, WILLIAM H.	New York City, Civil Eng. Q. M. Dept. U. S. A., Fort	Sept.	2,	1885
STAIR, WILLIAM II.	Riley, Kansas.	May	2.	1888
STARR, CHANDLER D.	134 Second ave., New York City.	June	,	1884
STARR, WILLIAM H.	Supt. Delaware Div. New York, Lake			
	Erie & Western R. R., Port Jervis,			
O TT	N. Y.	April	2,	1884
STEWART, HUNTER	Dep. City Surveyor, 25 Carondelet st., New Orleans, La.	June	1	1881
	New Officials, La.	, o time	Α,	1001
Tachard, Andre P.	13 Rue Tronchet, Paris, France.	June	6,	1888
TAPPAN, ROGER	(Care Am. Soc. C. E.) 127 East		,	
	Twenty-third st., New York City.	Dec.	3,	1884
TENNEY, GEORGE O.	Box 2, Decatur, Ala.	Sept.		1887
Thomson, Thos. Kennard	Pencoyd Iron Works, Pencoyd, Pa.	Oct.	3,	1888

Name.	Address.	Mem!	te o be r s	
Tibbals, George A.	148 Milton st., Brooklyn, N. Y.	May	2,	1888
TIBBALS, SAMUEL G.	148 Milton st., Brooklyn, N. Y.	May	2,	1888
Titus, Walton O.	First Asst. Eng. Mexican Inter-			
	national Ry., P. O. Box 109, Eagle Pass, Texas.	April	7	1886
TRATMAN, E. E. RUSSELL	144 Remsen st., Brooklyn, N. Y.	April	- 1	1886
Tribus, Louis L.	Asst. in School Civil Eng. University		٠,	
	of the City of New York (Address:			
	84 Warren st.) New York City.	April	4,	1888
TROTTER, ALFRED W.	112 East 127th st., New York City.	Sept.	5,	1883
Tuthill, Job	Ch. Asst. Eng. Letroit, Lansing & Northern R. R., Ionia, Mich.	Inno	e	1000
TUTTLE, ARTHUR S.	Asst. Eng. Dept. City Works, Muni-	June	υ,	1888
TOTILE, TRINCK D.	cipal Bldg., Brooklyn, N. Y.	March	2.	1887
	orrange, ereal, e, ever		-,	200.
VAN ZILE, HARRY L.	55 North Pearl st., Albany, N. Y.	Jan.	6,	1886
VAUGHAN, GEORGE W.	Asst. Eng. New York, Chicago & St.			
	Louis Ry., Broadway Depot, Cleve-			
**	land, Ohio.	March		
VAUX, DOWNING	Bible House, New York City.	Nov.		1887
VILLALON, José R.	South Bethlehem, Pa.	July	+,	1888
Wada, Yoshichika	(Care Japanese Consulate.) 7 Warren			
,	st., New York City.	Sept.	7,	1887
WADDELL, MONTGOMERY	(Care Edison Machine Works.)			
	Cohonosto ly V V			1886
WARNER, CHARLES S.	Schenectady, N. Y.	Sept.	1,	
	132 Broadway, New York City.	Sept. Jan.		1889
Webster, Albert L.	132 Broadway, New York City. Sanitary Eng., 107 Drexel Bldg., Wall	Jan.	2,	1889
WEBSTER, ALBERT L.	132 Broadway, New York City. Sanitary Eng., 107 Drexel Bldg., Wall and Broad sts., New York City.	-	2,	
	132 Broadway, New York City. Sanitary Eng., 107 Drexel Bldg., Wall and Broad sts., New York City. Asst. Eng. New York Central & Hud-	Jan.	2,	1889
WEBSTER, ALBERT L.	132 Broadway, New York City. Sanitary Eng., 107 Drexel Bldg., Wall and Broad sts., New York City. Asst. Eng. New York Central & Hud- son River R. R., Grand Central	Jan.	2,	1889 1882
WEBSTER, ALBERT L.	132 Broadway, New York City. Sanitary Eng., 107 Drexel Bldg., Wall and Broad sts., New York City. Asst. Eng. New York Central & Hud-	Jan. Sept.	2,	1889
WEBSTER, ALBERT L. WHEATLEY, JOSEPH Y.	132 Broadway, New York City. Sanitary Eng., 107 Drexel Bldg., Wall and Broad sts., New York City. Asst. Eng. New York Central & Hud- son River R. R., Grand Central Station, Room 21, New York City.	Jan. Sept.	2, 6,	1889 1882
WEBSTER, ALBERT L. WHEATLEY, JOSEPH Y. WHEELER, HARRY R. WHITTEMORE, WALTER F.	132 Broadway, New York City. Sanitary Eng., 107 Drexel Bldg., Wall and Broad sts., New York City. Asst. Eng. New York Central & Hud- son River R. R., Grand Central Station, Room 21, New York City. Eng. in chg. Tunnel etc., N. Y., Ont. & W. Ry., Walton, N. Y. 308 Garden st., Hoboken, N. J.	Jan. Sept. June April March	2, 6, 1, 4, 6,	1889 1882 1887 1888 1889
Webster, Albert L. Wheatley, Joseph Y. Wheeler, Harry R. Whittemore, Walter F. Williams, William P.	132 Broadway, New York City. Sanitary Eng., 107 Drexel Bldg., Wall and Broad sts., New York City. Asst. Eng. New York Central & Hud- son River R. R., Grand Central Station, Room 21, New York City. Eng. in chg. Tunnel etc., N. Y., Ont. & W. Ry., Walton, N. Y. 308 Garden st., Hoboken, N. J. Victoria Hotel, New York City.	Jan. Sept. June April	2, 6, 1, 4, 6,	1889 1882 1887 1888
WEBSTER, ALBERT L. WHEATLEY, JOSEPH Y. WHEELER, HARRY R. WHITTEMORE, WALTER F.	132 Broadway, New York City. Sanitary Eng., 107 Drexel Bldg., Wall and Broad sts., New York City. Asst. Eng. New York Central & Hud- son River R. R., Grand Central Station, Room 21, New York City. Eng. in chg. Tunnel etc., N. Y., Ont. & W. Ry., Walton, N. Y. 308 Garden st., Hoboken, N. J. Victoria Hotel, New York City. Prof. of Descriptive Geometry, Stere-	Jan. Sept. June April March	2, 6, 1, 4, 6,	1889 1882 1887 1888 1889
Webster, Albert L. Wheatley, Joseph Y. Wheeler, Harry R. Whittemore, Walter F. Williams, William P.	132 Broadway, New York City. Sanitary Eng., 107 Drexel Bldg., Wall and Broad sts., New York City. Asst. Eng. New York Central & Hudson River R. R., Grand Central Station, Room 21, New York City. Eng. in chg. Tunnel etc., N. Y., Ont. & W. Ry., Walton, N. Y. 308 Garden st., Hoboken, N. J. Victoria Hotel, New York City. Prof. of Descriptive Geometry, Stereotomy and Technical Drawing in the	Jan. Sept. June April March	2, 6, 1, 4, 6,	1889 1882 1887 1888 1889
Webster, Albert L. Wheatley, Joseph Y. Wheeler, Harry R. Whittemore, Walter F. Williams, William P.	132 Broadway, New York City. Sanitary Eng., 107 Drexel Bldg., Wall and Broad sts., New York City. Asst. Eng. New York Central & Hud- son River R. R., Grand Central Station, Room 21, New York City. Eng. in chg. Tunnel etc., N. Y., Ont. & W. Ry., Walton, N. Y. 308 Garden st., Hoboken, N. J. Victoria Hotel, New York City. Prof. of Descriptive Geometry, Stere- otomy and Technical Drawing in the John C. Green School of Science,	Jan. Sept. June April March May	2, 6, 1, 4, 6, 4,	1889 1882 1887 1888 1889 1887
Webster, Albert L. Wheatley, Joseph Y. Wheeler, Harry R. Whittemore, Walter F. Williams, William P.	132 Broadway, New York City. Sanitary Eng., 107 Drexel Bldg., Wall and Broad sts., New York City. Asst. Eng. New York Central & Hudson River R. R., Grand Central Station, Room 21, New York City. Eng. in chg. Tunnel etc., N. Y., Ont. & W. Ry., Walton, N. Y. 308 Garden st., Hoboken, N. J. Victoria Hotel, New York City. Prof. of Descriptive Geometry, Stereotomy and Technical Drawing in the	Jan. Sept. June April March	2, 6, 1, 4, 6, 4,	1889 1882 1887 1888 1889
WEBSTER, ALBERT L. WHEATLEY, JOSEPH Y. WHEELER, HARRY R. WHITTEMORE, WALTER F. WILLIAMS, WILLIAM P. WILLSON, FREDERICK N.	132 Broadway, New York City. Sanitary Eng., 107 Drexel Bldg., Wall and Broad sts., New York City. Asst. Eng. New York Central & Hudson River R. R., Grand Central Station, Room 21, New York City. Eng. in chg. Tunnel etc., N. Y., Ont. & W. Ry., Walton, N. Y. 308 Garden st., Hoboken, N. J. Victoria Hotel, New York City. Prof. of Descriptive Geometry, Stereotomy and Technical Drawing in the John C. Green School of Science, Princeton, N. J. (Care U. S. Geological Survey.) Washington, D. C.	Jan. Sept. June April March May	2, 6, 1, 4, 6, 4,	1889 1882 1887 1888 1889 1887
Webster, Albert L. Wheatley, Joseph Y. Wheeler, Harry R. Whittemore, Walter F. Williams, William P. Willson, Frederick N.	132 Broadway, New York City. Sanitary Eng., 107 Drexel Bldg., Wall and Broad sts., New York City. Asst. Eng. New York Central & Hudson River R. R., Grand Central Station, Room 21, New York City. Eng. in chg. Tunnel etc., N. Y., Ont. & W. Ry., Walton, N. Y. 308 Garden st., Hoboken, N. J. Victoria Hotel, New York City. Prof. of Descriptive Geometry, Stereotomy and Technical Drawing in the John C. Green School of Science, Princeton, N. J. (Care U. S. Geological Survey.) Washington, D. C. Asst., City Eng. Dept., 18 City Hall,	Jan. Sept. June April March May Sept. Sept.	2, 6, 1, 4, 6, 4, 5,	1889 1882 1887 1888 1889 1887
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Name.	Address.		ate of bership.
YATES, PRESTON K.	Eng. Natchez Water and Sewer Co., Natchez, Miss.	June	6, 1883
Young, Herbert A.	(Care E. R. Comfort.) Div. Supt. Mexican Central Ry., El Paso, Texas.	May	7, 1884
YORK, HERBERT W.	Cons. Eng., 22 Cortlandt st., New York City.	May	2, 1888
Zabriskie, Aaron J.	104 Sherman ave., Newark, N. J.	July	1, 1885
	1*0		

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[F. Am. Soc. C. E.]

Name.	Address.		ate of	
AINSLIE, JAMES W.	Louisville, Ky.	May	28,	1872
ALBRIGHT, JOHN J.	Buffalo, N. Y.	April	20,	1886
Barber, Amzi L.	Pres. Barber Asphalt Paving Co., 1 Broadway, New York City.	Mar.	19,	1886
Batterson, J. G.	Pres. Travelers' Insurance Co., Hartford, Conn.	June	7,	1876
Belknap, William R.	115 West Main st., Louisvile, Ky.	May	28,	1872
BLATCHFORD, E. W.	375 La Salle ave., Chicago, Ill.	Feb.	6,	1873
BOUTON, NATHANIEL S.	Pres. Union Foundry Works, Chicago, Ill.	Dec.	3ô.	1872
Bridgeord, John	Albany, N. Y.	Jan.		1871
Chanute, Octave*	Cons. Eng., 5 Ritchie pl., Chicago,	July	11	1872
CHENEY, NATHANIEL	201 Broadway, New York City.	June		
CLARK, EDWARD W.	139 South Fourth st., Philadelphia,			
	Pa.	April	- 1	
Clarke, Thomas C.*	1 Broadway, New York City.	May		
Cochran, A. P.	Louisville, Ky.	June	,	
COIT, EDWARD W.	402 Walnut st., Philadelphia, Pa.	Sept.	. 20,	1872
COLBY, CHARLES L.	Pres. Chicago & Great Western R. R., 36 Wall st., New York City.	July	31.	1883
COLEMAN, T. C.	Louisville, Ky.,	May	28.	1872
CONRO, ALBERT	Milwaukee, Wis.	June	13.	1883
Cooper, Edward	17 Burling Slip, New York City.	Dec.	10,	1885

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DARWIN, HARRY G.	Asst. Eng. The Safety Car Heating			-
,	and Lighting Co., 160 Broadway,			
	New York City.	Mar.	22,	1877
DE GARAY, FRANCISCO	Prof. School of Engineers, 1a Calle			
	de la Independencia, No.11, Mexico,			
	Mexico,	Aug.	31,	1883
DILLON, SIDNEY,	Pres. Oregon & Transcontinental Co.,			
	42 Wall st., New York City.	Mar.		1870
DIVEN, ALEXANDEX S.	Elmira, N. Y.			1870
DU PONT, BIDERMANN	Louisville, Ky.,	Sept.	Э,	1873
FARREN, B. N.	1731 Spring Garden st., Philadelphia,			
ŕ	Pa.	Mar.	12,	1870
FINK, ALBERT*	(Past President.) Comr. of Trunk			
	Lines, 346 Broadway, New York			
	City.	Sept.	3,	1872
FLINT, CHARLES R.	Flint & Co., 142 Pearl st., (Residence			
	4 East Thirty-sixth st.), New York			
	City	June	7,	1876
Francis, James B*	(Past President.) Cons. Eng. Proprs.			
	of Locks and Canals on Merrimack	3.5	,	4050
	River, Lowell, Mass.	May	4,	1870
GILMAN, CHARLES C.	Pres. The International Terra Cotta			
ordan, Chambre C.	Lumber Co., 115 Deaborn st., Chi-			
	cago, Ill.	May	11.	1871
GREEN, SAMUEL M.	81 New Insurance Bldg., Milwaukee,		,	
,	Wis.	Sept.	5,	1888
GURNEE, WALTER S.	7 Nassan st., New York City.	May	10,	1870°
Harrison, Stephen A.	81 New Insurance Bldg., Milwaukee,			
	Wis.	Jan.	30,	1873
HILL, JAMES J.	Pres. St. Paul, Minneapolis & Mani-	_		1000
HOLMAN, STEPHEN	toba Ry., St. Paul, Minn Treas. Holyoke Machine Co., Wor-	Jan.	10,	1889
HOLSIAN, DIEFHEN	Worcester, Mass.	July	11	1872
Howland, George, Jr.	New Bedford, Mass.	June		1870
HUNTINGTON, COLLIS P.	Vice-Pres. Central Pacific R. R., 23	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,	
	Broad st., New York City.	Mar.	10,	1877
Jones, Benjamin F.	Pittsburgh, Pa.	June		
Joy, James F.	Detroit, Mich.	Nov.	6,	1872
Lawler, John	Prairie du Chien, Wis.	April	28.	1883
Long Dennis,	Louisville, Ky.	Mar.		1872
	* Manchan			

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LOWTHORP, FRANCIS C.	152 Greenwood ave., Trenton, N. J.	Mar.	17,	1870	
LYON, WILLIAM M.	Pittsburgh, Pa.	Mar.	23,	1870	
MERRITT, GEORGE MEYER, HENRY C.	131 William st., New York City. Editor and Proprietor The Engineer and Building Record, 277 Pearl st.,	May	6,	1870	
	New York City.	Oct.	22,	1885	
NORMAN, GEORGE H.*	Newport, R. I.	Mar.	23,	1870	
Norton, Frederick O.	92 Broadway, New York City.	June	4,	1879	
Prosser, Thomas	15 Gold st., New York City.	June	1,	1870	
REED, WILLIAM W.	Pres. Erie City Pass. Ry., Erie, Pa.	Dec.	20,	1882	
RICHMOND, HENRY A.	Buffalo, N. Y.,	July	7,	1870	
Rumsey, B. C.	Buffalo, N. Y.	May	12,	1870	
SCOTT, WILLIAM L.	Erie, Pa.	July	7.	1870	
SWIFT, McRee	New Brunswick, N. J.	March			
TASKER, STEPHEN P. M.	(Morris, Tasker & Co.) 1622 South Fifth st., Philadelphia, Pa.	Sept.	90	1872	
TAYLOR, WILLIAM J.	Iron Master, Chester, N. J.	May		1870	
THAW, WILLIAM	Pittsburgh, Pa.	Aug.		1871	
Toucey, John M.	Gen. Supt. New York Central & Hud- son River R. R., Grand Central Station, (Residence, Garrison, Put-		,	1011	
	nam Co.) New York.	May	17,	1870	
Walker, George C.	228 Michigan ave., Chicago, Ill.	Feb.	6,	1873	
Watson, James	Paterson, N. J.	Dec.	5,	1872	
Welton, Nelson J.	Civil Engineer, Waterbury, Conn.	Jan.	20,	1873	
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Johnson, Charles R Pres. and Gen. Man. The Johnson R. R. Signal Co., Rahway, N. J. Jones, Washington Supt. Port Richmond Iron Works, Philadelphia, Pa.
Kirtland, Alfred P
Lawler, John
MEYER, THOMAS C.13 Waverly pl., New York City.MILLER, J. IMBRIE3928 Walnut st., Philadelphia, Pa.MORSE, HENRY G.Pres. Edge Moor Bridge Works, Edge Moor, Del.MYERS, CHARLES H2775 Third ave., New York City.
Nettleton, George H Pres. and Gen. Man. K. C., F. S. & M. R. R., and K. C., M. & B. R. R., Kansas City, Mo. Nicholson, George B Ch. Eng. C., N. O. & T. P. Ry., 530 Garrard st., Covington, Ky.

ODELL, FREDERICK S
Paine, Arthur B
Rea, Samuel
Sample, John H. Ch. Eng. L., St. L. & T. Ry., Louisville, Ky. Smith, Oberlin Pres. Ferracute Machine Co., Bridgeton, N. J. Smith, T. Gulford Pres. Ferracute Machine Co., Bridgeton, N. J. Sorzano, Julio F. 33 Broadway, New York City. Sosa, Pedro J Panama, U. S. Colombia. Stanton, Robert B 28 Barclay Bldg., Denver, Colo. Stauffer, David McN. Editor Engineering News, Tribune Bldg., Room 105, New York City. Strobel, Charles L Cons. Eng. Keystone Bridge Co., 205 La Salle st., Chicago, Ill. Sykes, M. L Vice-Pres., Treas. and Secy. C. & N. W. Ry., 52 Wall st., Chicago, Ill.
Thomson, John 11-13 Temple Court, New York City. Tidd, Marshall M .10 Tremont st., Boston Mass. Tomkins, Calvin .150 Broadway, New York City. Towle, Stevenson .25 Chambers st., New York City.
Wardlaw, James R

PAST OFFICERS

OF THE

AMERICAN SOCIETY OF CIVIL ENGINEERS.

PRESIDENTS.

James Laurie, * November 5, 1852, to November 6, 1867. James P. Kirkwood, * November 6, 1867, to August 5, 1868. WILLIAM J. McAlpine, August 5, 1868, to November 3, 1869. Alfred W. Craven, * November 3, 1869, to November 1, 1871. Horatio Allen, November 1, 1871, to November 5, 1873. Julius W. Adams, November 5, 1873, to November 3, 1875. George S. Greene, November 3, 1875, to November 7, 1877. E. S. Chesbrough, * November 7, 1877, to November 6, 1878. W. Milnor Roberts, * November 6, 1878, to November 5, 1879. Albert Fine, November 5, 1879, to November 3, 1880. James B. Francis, November 3, 1880, to January 18, 1882, Ashbel Welch, * January 18, 1882, to September 25, 1882. † Charles Paine, January 17, 1883, to January 16, 1884. DON J. WHITTEMORE, January 16, 1884, to January 21, 1885. Frederic Graff, January 21, 1885, to January 20, 1886. Henry Flad, January 20, 1886, to January 19, 1887. WILLIAM E. WORTHEN, January 19, 1887, to January 18, 1888. THOMAS C. KEEFER, January 18, 1888, to January 16, 1889. Max J. Becker, January 16, 1889.

VICE-PRESIDENTS.

Edward Gardiner,* November 5, 1852, to November 2, 1853.
Charles W. Copeland, November 5, 1852, to November 3, 1869.
Alfred W. Craven,* November 2, 1853, to November 6, 1867.
Julius W. Adams, November 6, 1867, to November 5, 1873.
James B. Francis, November 3, 1869, to November 2, 1870, and November 6, 1878, to November 3, 1880.

Thomas C. Clarke, November 2, 1870, to November 1, 1871.

Jacob M. Clark, November 1, 1871, to November 5, 1873.

W. Milnor Roberts,* November 5, 1873, to November 1, 1876.

Theodore G. Ellis,* November 5, 1873, to November 7, 1877.

Alexander L. Holley,* November 1, 1876, to November 7, 1877.

Albert Fink, November 7, 1877, to November 5, 1879.

^{*} Deceased.

[†] Mr. Ashbel Welch died September 25, 1882, during his term of office as President.

W. Milnor Roberts,* November 7, 1877, to November 6, 1878.

Octave Chanute, November 5, 1879, to January 18, 1882.

Ashbel Welch,* November 3, 1880, to January 18, 1882.

William H. Paine, January 18, 1882, to January 21, 1885.

James B. Eads,* January 18, 1882, to January 17, 1883.

Henry Flad, January 17, 1883, to January 16, 1884.

Joseph P. Davis, January 16, 1884, to January 21, 1885.

George S. Greene, Jr., January 21, 1885, to January 20, 1886.

Thomas J. Whitman, January 21, 1886, to January 20, 1886.

Thomas C. Keefer, January 20, 1886, to January 18, 1888.

J. James R. Croes, January 18, 1888, to January 18, 1889.

Robert Moore, January 18, 1888, to January 16, 1889.

Alphonse Fyeley, January 16, 1889.

E. L. Corthell, January 16, 1889.

SECRETARIES.

ROBERT B. GORSUCH, November 5, 1852, to November 2, 1853. EDWARD GARDINER,* November 2, 1853, to December 1, 1854. James O. Morse,* December 1, 1854, to November 3, 1869. Thomas C. Meyer, November 3, 1869, to January 5, 1870. Alfred P. Boller, January 5, 1870, to November 1, 1871. Gabriel Leverich, November 1, 1871, to November 7, 1877. John Bogart, November 7, 1877.

TREASURERS.

ROBERT B. GORSUCH, November 5, 1852, to November 2, 1853. EDWARD GARDINER,* November 2, 1853, to December 1, 1854. James O. Morse,* December 1, 1854, to November 3, 1875. John Bogart, November 3, 1875, to November 7, 1877. J. James R. Croes, November 7, 1877, to January 18, 1888. George S. Greene, Jr., January 18, 1888.

W. H. Morell,* year beginning November, 1852.

DIRECTORS.

n. H. SIDELL,			1004.
Julius W. Adams, years,	6.6	6.6	1852, 1875.
James P. Kirkwood,* "	6.6	n 6	1852, to Nov., 1867.
ALFRED W. CRAVEN,* "	6.6	6.6	1852, 1867, 1868, 1871 and 1872.
WILLIAM J. MCALPINE, ye	ars b	eginning Nov	vember, 1853, to Nov., 1867, and Nov.,
			1869.
WILLIAM H. TALCOTT,*	6.	6 6	· 1853, to Nov., 1868.
James O. Morse,*	6.6	6.6	" 1853, to Nov., 1867, and Nov.,
			1876

^{*}Deceased.

J. W. Pratt,*	vears b	eginning	November,	1853.
I. C. Chesbrough,*	66	"	66	1854, to Nov., 1867.
JAMES K. FORD,	6.6	4.6	6.6	1867, 1868.
GEORGE S. GREENE,	4.6		6.6	1867, 1868, 1870, 1872, 1874,
,				1876, 1877, 1878.
JOHN F. WARD,		44	6.6	1867, 1868, 1869, 1870, 1871.
E. S. Chesbrough,*	6.6	6.5	6.6	1869.
Thomas Prosser,*	66	6 +	4.6	1869.
JACOB M. CLARK,	6.5	6.	4.6	1869, 1870.
THOMAS F. ROWLAND,	6.6	4.	6.6	1870, 1871, 1872.
CHARLES MACDONALD,	4.	**	6.6	1870, 1873, 1874.
Alfred P. Boller,	6.6		6.6	1871.
WILLIAM E. WORTHEN,	4.6		6.6	1871.
John Bogart,			6.6	1872, 1873, 1874.
F. Collingwood,	6 *	* *	6.6	1872, 1873, 1874, 1875.
DE VOLSON WOOD,	. 6	. 6	6.6	1873.
OCTAVE CHANUTE,	6 =		6.	1873, 1874, 1875, Jan., 1885.
A. L. Holley,*		* *	* 66	1875.
Q. A. GILLMORE,*		66	6.6	1875.
W. Milnor Roberts,*		6.6	**	1876.
J. James R. Croes,	4.6	٤.	**	1876.
WILLIAM H. PAINE,	6.6	6.6	ř v	1876, 1877, 1878, 1879, 1880.
M. N. FORNEY,	5.4	6.5	6.4	1876.
Joseph P. Davis,	6.6	6.	6.6	1877, 1880, Jan., 1882, 1883.
C. Shaler Smith,*	6.6	6.6	6.4	1877.
C. VANDERVOORT SMITH,	* 65	5.6	6.6	1877, 1878, 1879, 1880.
THOMAS C. CLARKE,	6.6	+ 6	+ 4	1873.
Theodore G. Ellis,*	- 6	**	6.6	1878.
CHARLES HERMANY,	4.4	6.	6.6	1879.
EDGAR B. VAN WINKLE,		٠.	٤.	1879.
GOUVERNEUR K. WARRE		6.6	6.	1879.
G. Bouscaren,	6.	4.6	**	1880.
D. J. WHITTEMORE,	6.6	4.6	"	1880,
THOMAS C. KEEFER,	4.4	6 +	January,	1882.
THOMAS L. CASEY,	6.6	6.6	4.6	1882.
George S. Greene, Jr.		6.	6.6	1882, 1883, 1884, 1886.
George W. Dresser,*	6.6	4.4	6.6	1882.
WILLIAM METCALF,	6.6	6 6	6.6	1883, 1884.
WILLIAM E. MERRILL,	••	6 -	4.6	1883.
WILLIAM G. HAMILTON,		6.6	6.6	1883, 1887.
THEODORE COOPER,	4.	* 6	6.6	1884, 1885.
FRED. GRAFF,	6.		66	1884.
WILLIAM R. HUTTON,	66		66	1884, 1885, 1886.
WALTER KATTÉ,		44		1885, 1889.
F. W. VAUGHAN,*	66	66		1885.
W. Howard White,				1886.

^{*} Deceased.

HENRY G. MORRIS,	years	beginning	January,	1886.	
CHARLES L. STROBEL.	6.6	6.6	6.6	1886.	
CHARLES C. SCHNEIDER.	6 n	6.6	4.6	1887.	
STEVENSON TOWLE,	6.6	4.6	4.4	1887,	1888.
JAMES ARCHBALD,	6.	* 4	4.6	1887.	
ROBERT FORSYTH.	4.6	h 6	4.6	1887.	
MENDES COHEN,	6.6	4.6	4.4	1888.	
Joseph M. Wilson,	. 6	6.6	4.6	1888.	
Charles B. Brush,	4.4	6.	6.6	1888,	1889,
Alphonse Fteley,	4.4	4.6	. 44	1888.	
ELIOT C. CLARKE,	+ 6	6.6	6.6	1889.	
ROBERT E. McMath.		6.4	6.6	1889.	
WILLIAM P. SHINN.	6.6	4.4	1.6	1889,	

American Society of Civil Engineers.

DECEASED MEMBERS.

H. M., Honorary Member. M., Member. F., Fellow. M. F., Member and Fellow A., Associate. J., Junior.

Name.	Class.	Residence.	Date of Membership.	Date of Death.
ABERT, J. J.	Н. М.	Corps Engs. U. S. A.	Mar. 2, 1853.	Jan. 27, 1862
Ainslie, George	F.	Louisville, Ky.	May 28, 1872.	Sept. 7, 1878
ALLAIRE, WILLIAM M.	J.	New York City.	Mar. 2, 1881.	Dec. 14, 1884
Allis, Edward P.	F.	Milwaukee, Wis.	Aug. 4, 1883.	Apr. 1, 1889
Anderson, Adna	M.	Sing Sing, N. Y.	Sept. 2, 1874.	May 15, 1889
Ansley, George D.	M.	Montreal, Canada.	Sept. 4, 1878.	Sept. 22, 1883
ARTHUR, WILLIAM Y.	М. F.	Brooklyn V S	I.Dec. 4, 1867. Sept. 20, 1870.	- Eab 15 1876
ASPINWALL, WILLIAM F.	I. F.	New York City.	July 9, 1870.	Jan. 18, 1875
AVERY, JOHN	M.	New York City.	Dec. 4, 1867.	Jan. 30, 1884
Bailey, Thomas N.	M.	Corps Engs. U. S. A.	Nov. 7, 1883.	Apr. 20, 1886
Baker, William L.	M.	Detroit, Mich.	Jan. 6, 1875. I.Nov. 6, 1878.	May 28, 1888
BARBOUR, WILLIAM S.	M.	Cambridgeport, Mass	s.Apr. 17, 1872.	Feb. 24, 1889
Barnard, John G.	Н. М.	Corps Engs., M U. S. A. H	A .	May 14, 1882
Barnes, James	М.	Springfield, Mass.	Mar. 13, 1853.	Feb. 12, 1869
Baumann, Edward	Α.	Chicago, Ill.	June 2, 1880.	Jan. 23, 1889
BAYLEY, GEORGE W. R.	M.	New Orleans, La.	July 10, 1872.	Dec. 14, 1876
Bell, James E.	M.	Cincinnati, Ohio.	Mar. 3, 1879.	June 8, 1879
BENTLEY, HENRY A.	M.	Newport, R. I.	Mar. 2, 1881.	May 13, 1889
Beresford, Frank	J.	Cincinnati, Ohio.	Sept. 7, 1887.	Dec. 12, 1887
BLUNDEN, HENRY D.	М.		Jan. 5, 1876. (Feb. 4, 1880.	$\frac{1}{7}$ Jan. 7, 1889
Briggs, Albert D.	F.	Springfield, Mass.	May 17, 1870.	Feb. 20, 1881
Briggs, Robert	M.	Philadelphia, Pa.	Oct. 19, 1870.	July 24, 1882
Brough, Redmond J.	M.	Toronto, Canada.	Sept. 1, 1880.	July 21, 1883
Brown, John M.	М.	Auburn, N. Y.	Apr. 1, 1874.	June 16, 1874
BUCKHOUT, ISAAC C.	М.	New York City.	July 10, 1872.	Sept. 27, 1874
BURDEN, HENRY	Н. М.	Troy, N. Y.	Mar. 28, 1853.	Jan. 19, 1871
Burr, James D.	М.	Topeka, Kansas.	Apr. 5, 1876.	May 5, 1886

Name.	Class.	Residence.	Date of Membership.	Date of Death.
CAMP, JONATHAN, JR.	· M.	Jersey City, N. J.	July 2, 1873.	Apr. 16, 1874
CARTWRIGHT, HENRY	M.	Philadelphia, Pa.	Sept. 6, 1876.	July 30, 1881
CARY, EDGAR S.	M.	Newburgh, N. Y.	Nov. 1, 1882.	Jan. 5, 1883
Cass, George W.	F.	New York City.	Mar. 30, 1871.	Mar. 21, 1888
Chase, S. Stewart	F.	Holyoke, Mass.	Dec. 8, 1868.	May 29, 1873
CĤESBROUGH, E. S.	M.	Chicago, Ill.	June17, 1868.	Aug. 18, 1886
CLARK, IRA E.	J.	San Francisco, Cal.	Feb. 6, 1878.	May 23, 1882
COLBURN, WARREN	M.	Toledo, Ohio.	Mar. 18, 1868.	Sept. 16, 1879
Colburn, Zerah	M.	London, England.	Jan. 5, 1855.	Apr. 26, 1870
Colman, Isaac D.	M.	New York City.	Feb. 17, 1869.	Apr. 8, 1875
Cooke, Robert L.	M.	New York City.	Apr. 17, 1872.	Aug. 11, 1877
CORYELL, MARTIN	M.	Lambertville, N. J.	Dec. 4, 1867.	Nov. 30, 1886
COURTWRIGHT, MILTON	F.	New York City.	June11, 1870.	Apr. 25, 1883
CRAVEN, ALFRED W.	M.	New York City.	Nov. 5, 1852.	Mar. 27, 1879
Cushing, Samuel B.	M.	Providence, R. I.	Sept.15, 1869.	July 17, 1873
Cushing, Samuel B.	М.	Providence, R. I.	June 1, 1887.	Dec. 3, 1888
T	3.5	NT 1 (*)	1 0 1050	71 . 4 4650
DAVIDSON, MATTHIAS ().		New York City.	Apr. 6, 1853.	Sept. 1, 1872
DEARBORN, WILLIAM L.		New York City.	Dec. 4, 1867.	Mar. 15, 1875
Derbishire, Stewart	М.	Ottawa, Canada.	Apr. 2, 1884.	Jan. 7, 1887
Dexter, George M.	М.	Boston, Mass.	Nov. 5, 1852.	Nov. 26, 1872
Dirks, Justus	Н. М.	The Hague, Holl'd.	June 2, 1880.	Dec. 26, 1886
Dresser, George W.	M.	New York City.	July 5, 1876.	Mar. 27, 1883
DURANT, THOMAS C.	F.	New York City.	Nov. 18, 1870.	Oct. 5, 1885
Eads, James B.	М. Г.	New York City. (M. F.	Dec. 16, 1868. Mar. 30, 1870.	Mar. 8, 1887
Edge, George W.	M.	Jersey City, N. J.	Mar. 4, 1874.	Jan. 1, 1880
ELLIOTT, GEORGE H.	M.	Norfolk, Va.	Apr. 4, 1883.	Oct. 7, 1886
Ellis, Nathaniel W.	M.	Manchester, N. H.	Feb. 2, 1881.	Jan. 16, 1889
Ellis, Theodore G.	M. F.	Hartford, M. Conn. F.	Feb. 17, 1869, Nov. 21, 1872.	Jan. 9, 1883
EMACK, CHARLES S.	М.	Culpepper, Va.	July 6, 1870.	July 27, 1877
Еммет, Тномая А.	М.	Carmel, N. Y.	Nov. 5, 1852.	Jan. 12, 1880
EMONTS, WILLIAM A. G	. J.	Reading, Pa.	Sept. 6, 1876.	Nov. 5, 1887
Ensign, Elisha W.	F.	Buffalo, N. Y.	May 18, 1870.	Oct. 1, 1877
Ericsson, John	Н. М.	New York City.	Oct. 2, 1879.	Mar. 8, 1889
Evans, Walton W.	M. F.	New Rochelle, M. Y. F.	Dec. 4, 1867. Mar. 15, 1870.	Nov. 28, 1886
FALCONNET, EUGENE F.	М.	Nashville, Tenn.	June 3, 1874.	Oct. 14, 1887
FARGO, WILLIAM G.	F.	Buffalo, N. Y.	May 6, 1870.	Aug. 4, 1881
FARNHAM, HENRY	F.	Hartford, Conn.	Nov. 14, 1872.	Oct. 4, 1883
FARQUHAR, FRANCIS U.	М.	Corps. Engs. U. S. A.		July 3, 1883
FELTON, SAMUEL M.	F.	Philadelphia, Pa.	Mar. 23, 1870.	Jan. 24, 1889
FISHER, CHARLES H.	М.	Lansingburg, N. Y.	July 7, 1869.	Jan. 18, 1888
Thirty Chambro II.	7121	Time Bound, III.	- Cong	

Name.	Class.	Residence.	Date of Membership.	Date of Death.
FLINT, EDWARD A.	M.	Brookline, Mass.	May 18, 1870.	Jan. 23, 1886
FORD, ARTHUR L.	A.	Panama.	Nov. 6, 1872.	May 30, 1880
FORSHEY, CALEB G.	M.	New Orleans, La.	Aug. 7, 1872.	April, * 1882
FRENCH, EDMUND	M.	New York City.	Nov. 6, 1872.	May 30, 1880
FOWLER, CHARLES E.	Μ.	New Haven, Conn.	May 3, 1876.	Jan. 28, 1883
Frost, Benjamin D.	М.	North Adams, Mass.	Feb. 21, 1872.	July 19, 1880
GARDINER, EDWARD	M.	New York City.	Nov. 5, 1852.	*
GARDINER, HENRY A.	M.	Jackson, Mich.	Dec. 1, 1852.	July 26, 1875
Gillis, John R.	M. F.		June 2, 1869. Mar. 15, 1870.	j July 16, 1870
GILLMORE, QUINCY A.	M.	New York City.	Dec. 2, 1868.	Apr. 7, 1888
GORRINGE, H. H.	A.	New York City.	Apr. 6, 1881,	July 6, 1885
GRAIN, WILLIAM	M.	Fergus, Out., Can.	Sept.15, 1869.	Jan. 10, 1877
Grassau, H.	М.	New Haven, Conn.	July 6, 1853.	May 16, 1880
Greenwood, Wm. H.	M.	Dummerston, Vt.	Mar. 3, 1850.	Aug. 29, 1880
Griffen, John	Л.	Phœnixville, Pa.	Apr. 15, 1868.	Jan. 14, 1884
Наддоск, Аква К.	Λ.	New York City.	May 1, 1881.	Feb. 28, 1885
Hall, G. Thomas,	М.		Oct. 2, 1872. Sept. 2, 1874.	June 2, 1881
HARBAUGH, SPRINGER	F.	St. Paul, Minn.	May 19, 1871.	Dec. 8, 1887
HARDEE, THOMAS S.	M.	New Orleans, La.	Apr. 4, 1877.	May 20, 1880
HARRIS, HENRIQUE	M.	Brooklyn, N. Y.	Dec. 3, 1879.	Oct. 10, 1882
Haslett, Sullivan	M.	Brooklyn, N. Y.	June 4, 1879.	Jan. 4, 1887
HATFIELD, ROBERT G.	M.	New York City.	Dec. 4, 1867.	Feb. 15, 1879
HAYWARD, JAMES A.	M.	Galveston, Texas.	Sept. 5, 1877.	Aug. 13, 1880
HJORTSBERG, MAX	М.	Chicago, Ill.	July 10, 1872.	May 16, 1880
Hoe, Richard M.	M.	New York City.	Oct. 1, 1873.	June 8, 1886
Holley, Alexander L.	M.	Brooklyn, N. Y.	Oct. 1, 1873.	Jan. 29, 1882
HOWELL, CHARLES W.	M.	Corps Engs. U. S. A.	Mar. 3, 1875.	Apr. 5, 1882
HUMPHREYS, ANDREW A.		Corps Engs. U. S. A.	May 7, 1873.	Dec. 27, 1883
Hyde, William B.	M.	Oakland, Cal.	July 12, 1877.	June 1, 1882
James, John C.	M.	Battle Creek, Mich.	Mar. 1, 1876.	Feb. 27, 1883
Jervis, John B.	Н. М.	Rome, N. Y. M.	Dec. 4, 1867. Dec. 2, 1868.	Jan. 12, 1885
Johnson, T. Mark	M.	London, England.	Nov.16, 1870.	July 31, 1874
JORDAN, GABRIEL	M.	Mobile, Ala.	Sept.18, 1872.	Nov. 10, 1884
JUDAH, THEODORE D.	M.	Buffalo, N. Y.	May 4, 1853.	*
KINGSLEY, WILLIAM C.	F.	Brooklyn, N. Y.	June 6, 1870.	Feb. 21, 1885
KIRKWOOD, JAMES P.	M.	Brooklyn, N. Y.	Nov. 2, 1852.	Apr. 22, 1877
KLOMAN, ANDREW		The state of the s		
KRUPP, FREDERICK	F.	Pittsburgh, Pa.	Jan. 27, 1875.	Dec. 19, 1880

^{*} Precise date of death unknown.

Name.	Class.	Residence.	Date of Membership.	Date of Death.
Lane, Moses	M.	Milwaukee, Wis.	Dec. 4, 1867.	Jan. 25, 1882
LATIMER, CHARLES	M.	Cleveland, O.	Apr. 5, 1876.	Mar. 25, 1888
LAURIE, JAMES	M.	Hartford, Conn.	Nov. 5, 1852.	Mar. 15, 1870
Lesage, Louis	M.	Montreal, Canada.	Sept. 7, 1881.	Jan. 9, 1889
Lewis, J. W. P.	M.	Philadelphia, Pa.	Jan. 5, 1853.	*
		• '	,	
Mahan, Dennis H.		West Point, N. Y.	Mar. 2, 1853.	Sept. 16, 1871
Malezieux, Emil		Paris, France.	Nov. 3, 1880.	May 20, 1885
Marshall, Charles A.	М.	Johnstown, Pa.	Oct. 1, 1884.	May 31, 1889
Mason, Eddy D.	M. F.	Toledo, Ohio. $\begin{cases} M \\ F \end{cases}$	I.July 10, 1872. Dec. 28, 1872.	Dec. 19, 1874
McAlpine, Charles L.	M.	New York City.	Dec. 4, 1867.	Jan. 11, 1884
MERCUR, FREDERICK	M.	Wilkesbarre, Pa.	July 20, 1870.	Jan. 10, 1888
Merz, Frederick W.	M.	Louisville, Ky.	May 28, 1872.	Dec., * 1883
MITCHELL, ALEXANDER	F.	Milwaukee, Wis.	June13, 1883.	Apr. 19, 1887
MORLEY, WILLIAM R.	M.	Paso del Norte, Mex.	Sept. 6, 1882.	Jan. 12, 1883
MORRELL, WILLIAM H.	\mathbf{M} .	New York City.	Nov. 5, 1852.	*
Morris, William W.	M.	Cincinnati, Ohio.	Jan. 5, 1853.	*
Morse, James O.	M.	New York City.	Feb. 9, 1853.	Mar. 8, 1883
Newton, Isaac	M.	New York City.	Mar. 3, 1880.	Sept. 25, 1884
Nickerson, Louis H.	М.	Baltimore, Md.	Sept.18, 1872.	May 6, 1877
OGDEN, WILLIAM B.	F.	New York City.	Mar. 23, 1870.	Aug. 3, 1877
O'SULLIVAN, THOMAS S.	M.	St. Louis, Mo.	Jan. 5, 1853.	Nov. 1, 1855
T	3.5	D : M	ā	77.1 40.4000
PHILBRICK, EDWARD S.	М.	Boston, Mass.	Sept. 6, 1874.	Feb. 13, 1889
PHILLIPS, WILLIAM	F.	Pittsburgh, Pa.	Mar. 24, 1870.	Apr. 14, 1874
PHINNEY, HENRY W. B.	М.	West Fall Brook, Cal.		Nov. 22, 1888
Poinier, P. Porter	J.	Cambridge, Mass.	Mar. 3, 1875.	June 11, 1876
Post, Simeon S.	М.	Jersey City, N. J.	Nov. 5, 1852.	June 29, 1872
PRATT, T. WILLIS	F.	Boston, Mass.	Nov. 4, 1870.	July 17, 1875
Prosser, Thomas	М.	New York City.	Dec. 4, 1867.	Sept. 15, 1870
Randolph, James L.	M.	Baltimore, Md.	Mar. 1, 1882.	Sept. 17, 1888
Reeves, Samuel J.	M.	Philadelphia, Pa.	Apr. 5, 1868.	Dec. 15, 1878
Reno, James H.	M.	Pittsburgh, Pa.	Nov. 5, 1879.	Aug. 5, 1881
ROBERTS, W. MILNOR	M.	Rio de Janeiro, B'z'l.	Sept. 21, 1870.	July 14, 1881
Roebling, John A.	M.	Trenton, N. J.	Dec. 2, 1868.	July 22, 1869
Rogers, Albert B.	M.	Waterville, Wash.	June 6, 1883.	May 4, 1889
Rogers, John B.	M.	St. Louis, Mo.	July 2, 1873.	Apr. 1, 1874
Schott, C. Ridgely	М.	New York City.	Apr. 1, 1874.	July 9, 1878
SCHUYLER, HOWARD	M.	San Francisco, Cal.	June 7, 1882.	Dec. 3, 1883
Scowden, Theodore R.	M.	Cleveland, Ohio.	May 7, 1873.	Dec. 31, 1881
SEELY, THOMAS J.	M.	Guaymas, Mexico.	Feb. 1, 1882.	Oct. 2, 1883
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^{*} Precise date of death unknown.

Name.	Class.	Residence.	Date of Membership.	Date of Death.
SEYMOUR, M. T.	F.	New York City.	July 21, 1870.	May 30, 1885
SHELDON, SIMEON	M.	Cleveland, Ohio.	Feb. 5, 1873.	Mar. 4, 1883
SHREVE, SAMUEL H.	M.	New York City.	May 19, 1869.	Nov. 27, 1884
SICKELS, THEOPHILUS E	. M.	New York City.	Feb. 21, 1872.	Feb. 4, 1885
SIDELL, WILLIAM H.	M.	New York City.	Nov. 5, 1852.	July 1, 1873
SITES, WILMON W. C.	M.	Jersey City, N. J.	Nov. 6, 1878.	Oct. 1, 1885
SMITH, CHARLES A.	M.	Newburyport, Mass.	Apr. 7, 1880.	Feb. 2, 1884
SMITH, CHARLES C.	M.	St. Paul, Minn.	July 10, 1872.	Apr. 17, 1889
SMITH, C. SHALER	M.	St. Louis, Mo.	Mar. 5, 1873.	Dec. 19, 1886
SMITH, C. VANDERVOORT	M.	New York City.	July 5, 1876.	June 30, 1884
SPALDING, IRA	M.	New York City.	July 20, 4870.	Oct. 2, 1875
Spielmann, Arthur	М.	Hoboken, N. J. ^{§ A.}	Mar. 5, 1873. Sept. 5, 1877.	Nov. 25, 1883
STAHLBERG, ALBERT J.	J.	Copenhagen, Den'k.		Aug. 19, 1887
STEWART, DAVID A.	F.	Pittsburgh, Pa.	Nov. 7, 1872.	Dec. 14, 1888
St. John, Isaac M.	M.	Richmond, Va.	July 14, 1871.	Apr. 7, 1880
STRATTON, FRANKLIN A.	M.	Philadelphia, Pa.	May 3, 1876.	July 17, 1879
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TALCOTT, WILLIAM H.	M.	Jersey City, N. J.	Feb. 2, 1853.	Dec. 8, 1868
TASKER, CHARLES A.	J,	Cincinnati, O.	Nov. 4, 1874.	Oct. 4, 1879
TASKER, THOMAS T., JR.		Philadelphia, Pa.	Jan. 7, 1873.	Aug. 19, 1877
THOMPSON, JOHN C.	M.	New York City.	May 18, 1870.	Jan. 17, 1880
TOTTEN, JOSEPH G.	н. м.	Corps. Engs. U. S. A.		Apr. 22, 1864
TRACY, EDWARD H.	M.	New York City.	Feb. 19, 1868.	Aug. 28, 1875
TRACY, JOHN F.	F.	New York City.	Jan. 20, 1873.	Feb. 13, 1878
TRAFTON, GILMAN	M.	Louisville, Ky.	Jan. 4, 1871.	May 25, 1887
Tyson, Henry	M.	Baltimore, Md.	July 10, 1872.	Sept. 1, 1877
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VAUGHAN, FREDERIC W.	M.	Louisville, Ky.	Feb. 17, 1869.	Oct. 19, 1887
VINTON, FRANCIS L.	М.	Denver, Colo.	Aug. 5, 1868.	Oct. 6, 1879
WALLING, HENRY F.	M.	Boston, Mass.	May 6, 1868.	Apr. 8, 1888
Walton, Louis R.	M.	Earlington, Ky.	Apr. 1, 1885.	Nov. 9, 1885
Weber, M. M. Baron von		Berlin, Germany.	June 2, 1880.	Apr. 18, 1881
Welch, Ashbel	M.	Lambertville, N. J.	Aug. 7, 1872.	Sept. 25, 1882
Wells, Daniel L.	F.	Milwaukee, Wis.	June 13, 1883.	Nov. 24, 1884
WHIPPLE, SQUIRE	н. м.	Albany, N. Y.	May 6, 1868.	Mar. 15, 1888
WIGHTMAN, HENRY M.	M.	Boston, Mass.	Apr. 2, 1873.	Apr. 3, 1885
WILLIAMS, NORMAN A.	M.	Utica, N. Y.	Feb. 17, 1869.	Oct. 12, 1879
WILLIAMS, WILLIAM	F.	Buffalo, N. Y.	June 16, 1870.	Sept. 10, 1876
WILSON, WILLIAM W.	M.	Yonkers, N. Y.	Jan, 5, 1870.	Feb. 7, 1887
WORTHINGTON, HENRY R.	М.	New York City.	Jan. 5, 1876.	Dec. 17, 1880
WRIGHT, J. BUTLER	F.	New York City.	May 24, 1870.	Oct. 31, 1877
WRIGHT, WILLIAM W.	M.	Philadelphia, Pa.	Nov. 4, 1872.	Mar. 9, 1882
Yorke, Edward	М.	Sacramento, Cal.	Nov. 1, 1882.	May 28, 1884
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GENERAL INFORMATION.

Meetings,—Regular meetings are held at the House of the Society at 20 o'clock on the first and third Wednesdays of each month, except July and August. The Annual Meeting for the election of officers and hearing the Annual Reports is held on the third Wednesday in January, beginning at 10 o'clock. A Convention is held annually, at a time and place determined each year by the Society.

The House and Library of the Society are open to Members and visitors introduced by them, from 9 to 17 o'clock each business day except Saturday, when it is closed at 15 o'clock.

The Library and Conversation Rooms are also open each Wednesday evening from 19½ to 22 o'clock, except during Society meetings.

Publications.—The Transactions and Proceedings of the Society are at present issued in twelve numbers each year. They are furnished to all classes of Members and to persons subscribing \$100 or more to the Building Fund of the Society. They will also be sent to any subscriber at the rate of \$10.00 per year; and to clubs of ten or more, when ordered through the Secretary of an Engineering or Technical Society or Club, who will be responsible for the payment, at 25 per cent. discount. They may be had with cut or uncut edges, as desired.

Professional Papers.—The Board of Direction invites professional papers and communications on subjects of engineering interest from all persons, whether Members of the Society or not. These papers and communications will be accepted for publication in the Transactions of the Society, subject to the regular rules prescribed by the Society laws in regard to its publications. These rules provide for a proper editorial supervision, and for the exclusion of old matter readily found elsewhere, of matter specially intended to advocate personal interests, of matter carelessly prepared or controverting established facts, and of matter purely speculative or foreign to the purposes of the Society.

Discussion is also invited from all persons interested in the papers presented to the Society, such discussion to be, of course, subject to the same editorial rules.

House of the Society.—The Society has purchased and now occupies the house No. 127 East Twenty-third Street. New York City.—The Building Fund has been created to pay for this property.

Contributions to the Building Fund.—By a resolution of the Board of Direction, all contributions to the Building Fund are to be acknowledged, from time to time, by printing lists of the same in the monthly Proceedings of the Society, and in addition to this the names of all those who may subscribe \$100 or

more are to be regularly enrolled and published in future lists of the Society under the head of Subscribers to the Building Fund, and they will be entitled to receive one copy of the monthly publications, comprising all papers and transactions of the Society, regularly for life, for each \$100 subscribed by them; such copies to be in addition to those which they may be already entitled to if they are Members or Fellows.

ADDITIONS TO LIBRARY.—It is very desirable that copies of books on engineering subjects, and of reports of municipal, railway, canal, water supply and all other public works, be added to the Library. Members of the Society, and all who feel an interest in the establishment of a library of this character, are asked to secure and send to the Society any such books and reports.

Admission to Membership.—The active members of the Society are, under the Constitution, divided into three classes, styled respectively, Members, Associates and Juniors. The requisite qualifications for either class will be found in Article XVII of the Constitution, page 7. There are also Fellows of the Society, as provided for by Article XXIV, page 9. The provisions as to Honorary Membership are in Article XXIII, page 9.

The form of application for membership will be found on page 16. Information as to fees, dues, commutation of dues, certificates of membership and badge will be found on page 17.

For blank forms and for information, address the Secretary, at the Society House.

REMITTANCES.—All remittances should be made payable to the order of The American Society of Civil Engineers. They should be in drafts on New York, or in postal money orders, payable at the New York Post Office (not at a branch office).

List of Members.

ADDITIONS TOO LATE FOR PREVIOUS INSERTION.

MEMBERS.

Name.	Address.	Date of Membership.		
Beahan, Willard	North and South Am. Cons. Co., Calle de la Moneda 38, Santiago, Chili.	April		1889
COURTENAY, WILLIAM H.	Asst. Eng. Southern Div. L. & N. R. R., Montgomery, Ala.	July	3,	1889
Davis, Rob. B.	Man. Bridge and Cons. Dept. Pencoyd Iron Works, Pencoyd, Pa.	July	3,	1889
Evans, Louis H.	Div. Eng. Chicago and North Western R. R., Chicago, Ill.	July	3,	1889
GAY, MARTIN	Asst. Eng. Dept. Public Works, New York City, West New J. Brighton, Richmond Co., N. Y.	June June		1884 1889
GILLETTE, EDWARD, JR.	123 Columbus ave., New Haven, Conn.	July	3,	1889
HALL, JULIEN A.	First Asst. Eng. Richmond and Danville R. R., Washington, D. C.	June	5,	1889
KING, PAUL S.	Ch. Eng. Buffalo and Geneva R. R., 284 Main st., Buffalo, N. Y.	July	3,	1889
Nearing, Frank	Ch. Eng. for Brown, Howard & Co., New Croton Aqueduct, Tarrytown, N. Y.	June	5	1889
NORTHWAY, WILLIAM R.	City Engineer, Chicago, Ill.	July	,	1889
Owens, Henry K.	(Scurry and Owens, Civil Engrs.) Rooms 50 and 51, Yesler Block, Seattle, Wash.	March	6,	1889
Pierson, George S.	Kalamazoo, Mich.	June	5,	1889
STARR, ARTHUR B.	Supt. Eastern Div. Pennsylvania R. R., Allegheny, Pa.	June ·	5 ,	1889

ASSOCIATES.

Name.	Address.	Date of Membership.		
Breuchaud, Jules	204 West 121st st., New York City.	June	5,	1889
Futami, Kiosaburo	Keith and Perry Bldg., Kansas City,	T	-	1000
Hazen, John V.	Mo. Dartmouth College, Hanover, N. H.	June June	,	1889 1889
HUNSIKER, MILLARD	Carbon Iron Co., Pittsburgh, Pa.	June	5,	1889
Livingston, Julius I.	Man. Standard Paint Co., Bound Brook, N. J.	July	3,	1889
MILLER, T. SPENCER	96 Liberty st., New York City.	July	3,	1889

JUNIORS.

Name.	Address.	Date of Membership.		
Cushing, William C.	Eng. Main. Way, Cincinnati and Muskingum Valley Ry., Zanesville, Ohio.	June	5, 1889	
LAWLOR, THOMAS F.	Res. Eng. East and West Approach Poughkeepsie Bridge, Poughkeep- sie, N. Y.	June	5, 1889	
SMITH, MERRITT H., JR.	Asst. Eng. Croton Aqueduct, P. O. Box 767, Yonkers, N. Y.	June	5, 1889	
Wolfel, Ludwig P.	Pencoyd Bridge and Cons. Co., Pencoyd, Pa.	July	3, 1889	

DECEASED MEMBER.

Name.	Class.	Residence.	Date of Membership.	Date of Death.	
LYON, WILLIAM M.	F.	Pittsburgh, Pa.	Mar. 23, 1870.	July 3, 1889	



